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THE PLOUGHMAN offers great advantages to advertisers. Its circulation is large and among the most active and intelligent portions of the farming community. Entered as second-class mail matter.

New Sources of Farm Profit.

Farming as a whole is becoming more prosperous, not less so. In the older States it is changing in form somewhat, but paying as well as ever for those who more lively enough to keep up with the times.

Certain crops no longer pay very well, or rather it should be said that other things now pay better. That this change is not a decline is fully comprehended by many careful observers, who fail to see any reason for calamity talk just because a certain number of farmers have quit grain growing and have started shipping milk, or have let their rocky pastures grow up to wood and have taken instead fertile little fruit and poultry farms. As pointed out by Gov. N. J. Batchelder at the Hampshire meeting last week, a decline in the production of wheat and wool is no more evidence of the decline of agriculture in a State than would be the decline in the manufacture of scythes or of leather evidence of a decline in manufactures.

A change of this kind may mean that capital is being put into something that is less affected by competition and that finds a better market. Thus the products of New Hampshire market gardens and greenhouses, declares Governor Batchelder, sell for more money than all the grain which the farms produced fifty years ago, while the State's milk and dairy products are worth more than the entire product of the farms at that time. New Hampshire sends twenty-five carloads of milk to Boston daily, besides the large product of fifty creameries and numerous dairy establishments.

Another strictly modern farm industry, the entertainment of summer boarders, is mentioned by Governor Batchelder as including two thousand hotels and boarding houses and a thousand or more farms in this one State, affording a new home market for a vast quantity of farm and garden products and bringing an income of \$8,000,000 to the farm families of the State.

Conditions are much the same in other States of the Northeast. Grain, live stock, wool and extensive farming in general have had something of a setback, but as a more profitable substitute, Maine has dairying, cream shipments, poultry and vegetables; New Hampshire, milk, gardening and summer boarders; Vermont, dairy products and sugar; New York, fruit, milk and numerous specialties, and so on. Every loss is more than offset by gains from newly developed sources of income. The net result has been an increase in the standard of farm living, with more comforts and luxuries, more attention to social and educational privileges and a generally advancing and hopeful condition.

Harvesting Muskmelons.

One hundred and fifty crates of melons an acre is a fair yield. I find there is some difference of opinion about picking, and it is really necessary to pick them greener when they are to be several days in transit, but I will give you my way of doing it. The first half of the season I pick them as soon as the stems can be forced with the thumb to part from the fruit without breaking out a piece of the melon with it—that is, it must come off smooth and not tear or break in the flesh. This condition should prevail before the cantaloupe has begun to turn yellow; but a cantaloupe that is in this condition and just right to ship today will be quite yellow and unfit for transportation the next day.

After the season is one-half or two-thirds gone and the weather is very hot, as is usually the case, I find it safe to cut them off with stems after they are full grown and have become densely netted. It requires careful help to pick a crop of cantaloupes without considerable losses from picking too green or too ripe. In either case those too ripe or too green should not go in the package. An expert should follow just behind every fifteen or twenty pickers to see that they are doing their work properly. Wagons should be ready to take the cantaloupes to the packing shed soon after they are brought out to the end of the rows.

All handling to be carefully done, to prevent bruising and bursting. When they arrive at the packing shed the packers, mostly women, hurry them in the crates, which hold forty-five cantaloupes each. No over ripe, too green, very small, very large, or immature cantaloupes are allowed to go in. It is important that every cantaloupe should be perfect. One crate well packed, carefully culled and in perfect order is worth three that may be packed out of the same pile by a careless packer, who will put in a cull or two, and perhaps pack them loose so the cantaloupes can roll about.

W. H. ALLEN.  
Salisbury, Md.

Farm Colonies for Negroes.

A few weeks ago we commented in these columns on the endorsement by the bishop of the African Methodist Church of a scheme for negro colonization in Liberia. The particular recommendation of this plan lies, as we then pointed out, in the fact that the environment for Liberian colonists would be a native one. For, while the negro may not be an agriculturist by nature, the qualities that make a good farmer might be successfully developed, it is held, in the absence of those deterrent conditions peculiar to white countries. Information which has just come to hand concerning a negro colony planted among the whites of Canada some fifty years ago interestingly endorses this view. The settlement in question is situated at Buckton, in Kent County, Ont., and was in 1849 set apart to the extent of nine thousand acres for colonizing purposes. The originator of the plan was the Rev. William King, an English clergyman, and five years ago when he died he declared that the experiment was in every way a success, and had established all that the promoters intended for the fugitive slave first settlers and their descendants. But visitors to the colony today might draw different conclusions. While there are among the 1200 colored people there many conspicuous instances of individual advancement, there are no indications in the nature of thriving villages or industrial communities of the success of the plan. In fact, if the experiment demonstrates one thing more than another, it shows that a successful negro farm colony in a white land is not possible. Very clearly the Canadians near Buckton have seen that the negro is not a farmer by instinct, and is especially incapable of following the plow from one generation to another if there are nearby a white people to whom he can hire out. "They want somebody to direct them," is the way one of the students of the situation expressed his conclusion. The children of the colored population at this place attend good country schools, churches are numerous and every facility is afforded them for active competition with the whites. Yet, in spite of these conditions and the fact that the majority of the colonists began their life in Canada with a practical knowledge of farming, they have not built up a community worthy of the name. They have founded no towns; they are even rapidly losing their identity. And though at the start almost all of the 1200 settlers owned farms, these have now very nearly passed out of their hands. In view of the stress laid upon the ballot as a factor of material advancement in the Southern States, it is interesting to observe that the members of the Canadian colony are not nearly so particular in exercising the electoral franchise as is the white population. Further, the negroes are anything but thrifty. Though they work well under direction, they get into debt rapidly as a result of their desire to have more pleasure and to indulge in more luxuries than they can afford. Speculation and investment for the sake of ultimate liberal returns fails to attract them. The oil lands with which this particular district abounds were eagerly acquired by enterprising whites while the negroes sold for a few dollars in cash their vested interests in these lands rather than wait for a big royalty. What is probably the explanation of the whole situation is, however, given at the end of the article from which we have drawn our facts: Few types of full-blooded negroes are found here. The race is apparently being assimilated. The majority of the refugees who formed the original body of colonists were mulattoes, and these have intermarried with Indians and occasionally with whites. The result is distinct deterioration. The one notable exception to all the discouraging items quoted, is, indeed, that of the schoolmaster of the place, who is a splendid type of the pure Ethiopian. This man never knew the burdens of slavery, for his parents before him were free men from the west coast of Africa. He alone, therefore, was fitted in every respect for a successful career when he came to the colony. As was to be expected in a strong man with his ability and his sane view of things, he has kept himself scrupulously free from any great intimacy with the whites, and is bringing up to useful careers children of as pure African strain as was he himself. He believes emphatically that Africans may, under favorable conditions, develop agricultural proclivities. He is indeed quoted as saying that hope for his people lies only in the owning and the cultivation of land, a condition which, as a civilizing influence he places even in advance of education, inasmuch as it fits men for a realization of their obligations. Peculiarly interesting is it to see this opinion of a well-endowed, free-born native African, brought up in Canada, against that of Mrs. Jane E. D. Sharp, a Boston-educated black woman of unusual gifts, who is now working in Liberia for her own people. Mrs. Sharp thoroughly believes that there is a wonderful history before the black colonists who may go to Africa. "When I see in this country," she said recently, "brave, splendid men and women of our race who have placed themselves in the front rank, and have come up to economic efficiency against even so tremendous a drawback as the enslavement which resulted from years of slavery, I perceive that the same spirit applied to obstacles in West Africa would work veritable wonders. For there, ready to hand, are almost infinite possibilities in the way of industrial and agricultural development. All that is needed is, for the black man to develop interest and pride in the country from which he sprang." Africa for the Africans—not forced colonization, but such encouragement and help to emigration, as it is hoped may result from the bill now being framed for presentation to President Roosevelt, presents a possible and attractive solution of the negro problem.

Farmers Should Keep Bees.

In its crop report for July, which appeared Aug. 1, the Massachusetts State Board of Agriculture includes an article on "Bee Keeping; Its Pleasures and Profits," by Dr. James B. Paige, professor of veterinary science at the Massachusetts Agricultural College. In this article Dr. Paige says: Forty or fifty years ago nearly every farmer kept a few swarms of bees. They furnished him with a healthful article of food that was considered almost a necessity. Today it is the exception that one sees about the farmer's home these producers of the most wholesome and delicious table delicacy it is possible to obtain. In addition to the production of honey, bees perform a valuable service by the fertilization and cross fertilization of flowers, the value of which cannot be estimated.

Bees can be most advantageously handled during the middle of the day in summer, when poultry requires little care. A large farm in a rural district is not essential for the successful keeping of bees. They thrive in towns, villages and even large cities. Swarms protected from strong winds and extreme cold in winter will thrive in almost any locality in Massachusetts. Dr. Paige gives advice as to the selection of varieties of bees, management, and selection of hives and appliances. He recommends starting in a small way with one or two swarms, the natural increase of which will quickly build up the apiary, while the necessary experience for more extended operations may be acquired while working with a few. The cost of starting an apiary is comparatively small, being about \$15, including swarm of bees in hive complete.

In order to bring this feed to the attention of Vermont feeders, and to make good in part this apparent deficiency, a series of trials were instituted to compare the feeding value of malt sprouts with sundry standard concentrates.

Malt sprouts are a residue of the brewing industry. Barley grains are sprouted in the process of malting, and in due course, are rubbed off and sold, either wet or dry, as a cattle food. They enter the general market solely in the kiln-dried form. They are small, comma-shaped, light-yellow brown particles of an agreeable nutty odor and crisp texture. When fed dry they are frequently refused by cows. If soaked some hours before feeding they are often better relished. The station herd did not take very kindly to the sprouts. Some of the cows ate them readily, others somewhat reluctantly, and others not at all, even when the sprouts were well soaked.

The first experiment was with malt sprouts as compared with a cottonseed-linseed and bran mixture. This trial was one of rations with nutritive ratios nearly alike, not near enough to be equally balanced, but still closely similar in the proportion of digestible protein and carbohydrates. 1. The dry matter consumption when the malt sprouts were fed dropped ten per cent.; and so did the milk yield. 2. The quality of the milk was essentially the same on both rations. 3. The yield to the unit of dry matter was the same on both rations.

In the second experiment, comparing with a bran and oats mixture, although nine per cent. less dry matter was eaten in the malt sprouts than from the ground oats ration, the shrinkage in milk and milk constituents was but four per cent. The quality of the milk remained unaltered by the changes in feeding. Since the shrinkage in yield when the malt sprouts were fed was proportionately less than that in consumption, it follows that the production to the unit of dry matter when this ration was eaten was more than when oats were fed.

As to the outcome of these two trials viewed from the money standpoint, thirteen per cent. more milk and fourteen per cent. more butter were made on cottonseed-linseed than on malt sprouts at a ten per cent. increase in cost; thus the direct saving was only three per cent. The former carried, however, twelve per cent. more plant food; hence the final outcome, using the assumptions hitherto mentioned, is a daily net gain in favor of the cottonseed-linseed ration of 1.93 cents, practically half of which is due to the increase in the yield of butter and half to the added amounts of skim milk and the extra manual value. The ground oats ration made four per cent. more product at an increased cost of thirty per cent. The manual values of each ration were essentially identical.

The extreme and prohibitive price asked for ground oats during the winter of 1902, a price unparalleled in decades, makes the showing very unfavorable to the ration of which they formed a part. The record really has no bearing on ordinary conditions. One can simply say that the ground oats ration made more than did the malt sprouts rations, and ignore the relative costs.

The Making of a Farmer.

Young men need new ideas. So do other men, but they may be too old to use them. For a young man to settle down on a farm without at least a short course at a live progressive farm school is a serious misfortune. He is at the same disadvantage as any young man who tries to learn a trade or profession all by himself. He has missed the numerous helps and hints which are floating around in a crowd of bright students. Association with the right kind of teachers stirs and quickens like electricity. The modern college is not a collection of recitation rooms, formal courses and dry, theoretical teachers. It is an institution which discards some of the out-of-date mental padding of old-style colleges, but gives an education just as broad and thorough and respectable, but far more helpful in every way. It wakes up the student and tells him the why of things and also the how.

THE COLLEGE AT ITHACA, N. Y.

The Cornell College of Agriculture is taken as a type of the best class of eastern colleges.

It is provided with land, stock, orchards, gardens, libraries and other equipments. The land is distributed in three contiguous areas, comprising altogether about 275 acres. The buildings comprise a dairy, two barns, poultry quarters and forcing-houses. There are herds of cattle, sheep and swine, flocks of poultry, various farm horses. In the horticultural department is a good collection of fruit trees in orchards and many kinds of specimen plants. Farm machinery and implements are also represented. The library facilities are ample, comprising a very large collection of rural books in the general university library, a practically complete series of experiment station publications in the director's office, and small reference libraries in the dairy building and in the rooms of the horticultural club. Students entering the college of agriculture are on an equal footing with students in any other college or department. They become a part of the general student body. They are under the special supervision of the director of the college. Two special societies or clubs are organized and maintained by the students in the college of agriculture—the agricultural association meeting every Tuesday night and the horticultural club meeting every Monday night. In addition to these, the winter-course students maintain an organization of their own. Recently there has been organized an "agricultural experimenters' league," to which all students are eligible, and which is designed for the furthering of experimental investigation and of arousing closer friendship

amongst the farmers of the State.

Ithaca is situated at the head of Cayuga Lake, near the centre of New York State. It is a city of between thirteen thousand and fourteen thousand inhabitants. It is reached by the Lehigh Valley and Delaware, Lackawanna and Western railroads, and in summer by steamer on Cayuga Lake. The region is a most beautiful and healthful one. The surface is exceedingly diversified. The university stands on a plateau about four hundred feet above the lake.

LEARNING WHY AND HOW.

Just what the studies are in the regular four-years-course is explained in the college catalogue. It is enough to say here that the first two years include a thorough scientific and general education, while during the last two years the student goes into such studies as he chooses in the lines of dairying, fruit growing, gardening, mechanics, irrigation and the like. There is a shorter course of two years along the same general lines and two or three very practical winter courses on general farming, dairying, poultry keeping, diseases of animals, fruit growing, stock management, etc., including much actual practice in the barns, dairy-house, greenhouses and work rooms.

A glance over the illustrations with this article gives some idea of the work without having read a word of description. Even a short winter course under such conditions must be a fine thing for a young man or woman.

Tuition is free to all students of the longer courses, but in the short winter courses students from outside the State pay \$30 to \$45 for tuition and fees.

DR. BAILEY'S IDEAS.

Director L. H. Bailey writes: "The college of agriculture is now being reorganized on a liberal basis. The college of agriculture of the future must be much more than an affair of teaching merely technical agriculture. Farmers are interested not only in the means of producing crops, but also in the distribution and selling of them, in the rural schools, in the ideals of living, and in all the questions that have to do with good citizenship and a full life. We hope to bring the college of agriculture into touch with every rural interest. The whole subject of the rural schools needs co-ordination with the lives of the people. Every important industry in which farmers are engaged should afford means whereby the college can reach people and still further educate them. The census shows, for example, that there are five million farms in the United States on which poultry is raised. Here is an opportunity, then, to reach great numbers of people by means of instruction in poultry raising. We can reach the people by taking hold of the things in which they are themselves interested. The way to reach the man who grows wheat is not by means of Greek or mathematics, but by means of wheat. Having gotten his interest, it is then an easy matter to lead him on and out. More and more we must relate education to the daily life of the common people. We must take hold of the ordinary problems with which a man lives, thereby educational training will become central to his life and a part of the satisfaction of living."

Eventually the modern farmers' college intends to get right hold of the young men and teach them something worth while about things worth knowing. Fortunately the man who has a chance to get waked up and started thinking by a man like Dr. Bailey or others of the dozen or so leaders in the United States, who are bringing farm education up-to-date and fully into line with expert instruction in other lines.

This article is not intended to boom Cornell College. There are other colleges, both East and West, of which as much might be said in description of the work and opportunities. If a young man is ambitious and bright, let him pick out his college, stay there as long as he can, work hard, and the college will do the rest.

My Experience with Silos.

First the objections: It costs something to build and keep in repair. My own cost nearly \$100, and after filling seven times, needs repairing. In using ensilage I have no refuse stalks to use as bedding. At filling time in my case I have to hire extra help, which is hard to get at that time.

I like the silo because it enables me to harvest and put away for future use a large amount of feed which I could not have in any other way, making me independent of weather conditions if I tried to cure the fodder. I put stalks, ears and all together through the cutter and see that it is well packed. Except a small portion on top and a little in the corners it comes out in good condition. I aim to raise heavy crops of corn for ensilage.

My silo is square, twelve feet six inches by twelve feet eight inches and twenty-six feet deep, and took less than four acres to fill it last year. After settling and the corn became dry I filled again, running a small stream of water in with the corn. I went to feeding it the next day, using grain ration at the same time. It lasted twenty milch cows until July 15.

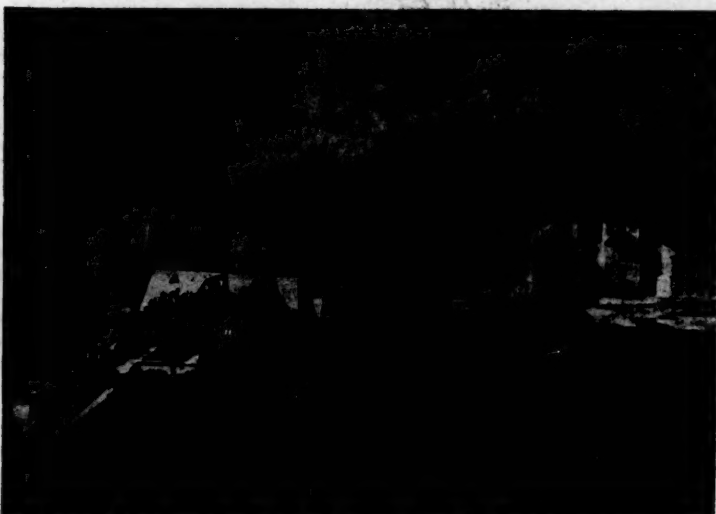
As to cost of filling I do not find it costs as much as to bind, set up, husk, grind and cut the dry stalks.

By having corn out with a corn harvester or having it cut before commencing, we usually finish in fourteen hours. I pay \$1.50 per hour for machinery and two men, and use three teams. I have never seen anything but good results from feeding ensilage.

A. H. BROWN.

Hamden Court, Mass.

That there is a shortage of horses in the country may be true, and yet there is remarkably little difference between receipts this year and last.



CORNELL UNIVERSITY.



CORNELL STUDENTS AT WORK WITH CHEMICALS.



ROOT GRAFTING.



LAYING OUT A NEW BUILDING.  
See descriptive article.

Dr. Paige then gives figures from the twelfth census for the United States, the five leading States in the bee industry and for Massachusetts. An interesting comparison is that between Massachusetts and Vermont, which shows that with practically the same number of farms Vermont has 12,336 swarms, valued at \$3.58 per swarm, while Massachusetts has only 8381 hives, which, however, are valued at \$4.26 per hive. Much of the Vermont honey is sold in Massachusetts. The situation of our own State is more favorable for bee keeping than is that of Vermont, and there seems to be no good reason why we should not produce sufficient honey for home consumption.

Continuing, he points out that it is not well to depend on bee keeping alone as a source of livelihood, but that it should be combined with some other specialty, such as market gardening, fruit growing or poultry raising. In Dr. Paige's opinion a combination of bee keeping and poultry raising is a very desirable one, for the reason that bees are inactive in winter, when poultry requires constant attention, while

extra hive, bee-smoker, veil and other appliances, all of which will be sufficient for conducting the apiary as it increases. In selecting hives, one of the modern movable frame hives, with super for surplus honey boxes, should be used, and the simpler its construction the better. All hives in the yard should be alike, so that parts may be interchanged. Much pleasure may be had and information gained by the study of bees kept in an observation hive.

Feeding Value of Malt Sprouts.

Experiments to obtain data as to the feeding value of malt sprouts were carried on at Vermont, and are described in the fifteenth annual report of the Vermont experiment station. It is stated that malt sprouts are seldom fed in Vermont. Their very name doubtless prejudices many against them. They are, however, largely used and highly prized in many dairy sections in this and other countries. Yet, so far as can be determined no feeding experiments with cows using this concentrate have thus far been made at an American experiment station.



## Butter in Fair Demand.

A somewhat improved demand is shown for the best grades of creamery and quotations on these lines have moved up a fraction, otherwise conditions in Boston market remain about as last noted. Lower grades, both creamery and dairy, are selling slowly and price has not improved. Print and box butter is in oversupply and is selling low as compared with other stock.

At New York the general situation holds about as described last week. Demand continues good for the higher grades and slow for poorer qualities. There is no sign of advance in price, holders being willing to sell at present quotations, and some being willing to take off a little to close a bargain. Receipts continue large. Dairy butter is now mostly below best grade and has suffered more than creamery in the decline.

Considerable extra butter has been coming from the West of late owing to low prices there. But speculators and storage people are rather cautious about buying, though prices are lower than when most of the stock now in storage was bought.

Most of the stock put away now will be short-hold goods. While it goes in at an advance of 3 cents per pound it will not carry like June stock. When it gets up to cost of June holders will eagerly sell to get back their money and avoid loss. The price decline, it is thought, came from larger receipts and from the position banks now take. Losses were so heavy last year on apples, butter, eggs and poultry that bankers have taken a conservative stand and turn down loans. The bankers in turn cause storage people to stop advances. As an illustration of changed conditions, a produce man who has plenty of money often to loan says he was bored last year by offers of money at three and 3 1/2 per cent. This year he could not get enough to loan at six per cent. backed by good security.

Some dealers ask, "What are we going to do with all the butter if we can't get some of it out into the country?" There is no export demand and the Canadian situation gives little prospect of any. Dealers estimate surplus at 110,000,000 pounds, besides current receipts. How will the trade take care of it is now the problem. This is about the basis of conditions as a few years ago when 17 to 18 cents was the price of creamery stock.

Cheese sells fairly well in New York markets, considerable amounts being taken by speculators and exporters. Colored sells better than white at present. The demand is dull for the lower grades, and some of these, notably the skims, show a lower range of values.

Receipts at Boston for the week were 33,815 tubs, 25,146 boxes, or 1,794,868 pounds of butter, 9683 boxes of cheese besides 326 boxes for export, and 19,794 cases of eggs. For the corresponding week last year the figures were 34,472 tubs, 25,488 boxes, or 1,862,398 pounds of butter, 6003 boxes of cheese, besides 2628 boxes for exports, and 21,566 cases of eggs.

At New York receipts were 65,800 packages of butter, 31,400 packages of cheese and 47,800 cases of eggs. Same week last year 55,958 packages butter, 26,903 packages cheese and 51,887 cases of eggs.

## Provisions About Steady.

Pork provisions hold fairly steady at the lower range of prices last recorded, but the tendency for both beef and pork has been toward decline rather than advance owing to the not very brisk demand.

The total of hogs killed for the Boston trade for the week was about 26,000; preceding week 22,500, same week a year 22,300. The export demand has further decreased, the total value by Boston packers having been about \$130,000, preceding week \$156,000, same week a year \$206,000. The marketing of hogs is falling off moderately, but is still considerably larger than a year ago, according to the Cincinnati Price Current. Total Western packing for the week was 390,000 compared with 405,000 the preceding week, and 485,000 two weeks ago. For the corresponding time last year the number was 260,000, and two years ago 510,000. From March 1 the total is 8,510,000, against 8,005,000 a year ago—an increase of 505,000. The quality is mostly good, though at some points it is only fair. Prices have declined, prominent points averaging at the close \$5.40 per hundred pounds, against \$5.55 a week ago, \$5.30 two weeks ago, \$7.35 a year ago and \$5.65 two years ago. Destruction of nearly sixteen million pounds of pork at the recent fire in Chicago does not seem to affect the market.

The total beef arrivals at Boston for the week were larger than for the previous week. The total was 110 cars for Boston and 174 cars for export, a total of 284 cars; preceding week 172 cars for Boston and 101 cars for export, a total of 273 cars; same week a year ago, ninety-three cars for Boston and eighty-five cars for export, a total of 178 cars.

## Grapes for Export.

The grape crop is to be a light one in most sections, and prices this year ought to net more satisfactorily than they have done of late. An English buyer, who has been investigating the possibilities of an export trade reports: "I found they grow some very good grapes near the great lakes. I had a chat with some of the growers who asked me if there was any opening for their grapes on the London market. I said: 'Yes, there is a good opening, but they will depend altogether upon your making arrangements outside the men who handle grapes generally.' I suggested to them they should pack their grapes in boxes of from three to four pounds, and let them be sold in the streets of London on the barrows, for they will never be more than a barrow fruit. It will be no use sending them over in cases of twenty-eight pounds. They could not compete with the home-grown, it is evident, but as a barrow grape, in small convenient boxes that passers-by might pick up and carry away, the sales might be large." Apparently the small basket trays used by California shippers would be the proper package.

## Plenty of Hay.

The markets of the large cities are well supplied, prices are in buyers' favor, weak, except somewhat except for the most desirable grades. Quotations are still rather high, but have declined something like \$1 per ton the past ten days, taking an average of grades and an average of leading markets. New hay will soon begin to affect the market, making a prospect favoring a further decline, rather than a recovery. Buyers expect the new crop to start considerably below present prices of the old, and they are buying as little as possible now in hopes of getting plenty at more favorable figures in the fall.

At Boston a surprising amount of old hay has been coming from Maine and Canada until the supply is nearly a month ahead of demand, and some dealers fear a break in prices when the new crop begins to arrive freely. Receipts last week were 379

cars, against 304 for the same week last year. Canada, which dominates the Boston hay market, undoubtedly will have plenty of hay to sell. It is now an admitted fact that the hay crop of Quebec Province will be much larger than was thought possible some time ago; and in some of the best sections it will not fall far short of that of last year. The agent for the Montreal Trade Bulletin who has been through the best sections of Chateauguay County was surprised to see the many splendid fields of timothy, whilst many other fields where the timothy was thin a good bottom of clover was noticeable. Between Ormstown and Allan Corners there are fields of pure timothy that it would be difficult to surpass in excellence of quality and quantity anywhere. Quite a few fields were gathered in good condition at the close of last week before the rain which was pretty general on Saturday night and Sunday came on. There is still a good quantity of old hay in Canadian farmers' hands, which is selling all the way from \$9 to \$12 at country points; but it is difficult to buy good No. 2 hay under \$10 f. o. b. at Montreal.

New York markets are quiet and weak, with buyers holding off and dealers not anxious for shipment. Receipts for the week were 8671 tons, which is less than for the week before, but nearly double those for the same week last year. Western cities report dull and easy markets. Southern markets are receiving much new hay and values are lower, now selling at \$3 to \$3 1/2 below old.

The following table shows the highest prices for hay as quoted by the Hay Trade Journal in the markets mentioned: Boston \$22, New York \$23, Jersey City \$21, Philadelphia \$20.50, Brooklyn \$24, Buffalo \$18, Pittsburg \$19, Duluth \$13, Minneapolis \$12, Baltimore \$19.50, Chicago \$14.50, Richmond \$19, Cincinnati \$17.50, Nashville \$18, Kansas City \$10.50, St. Louis \$14.50, Washington \$15, Memphis \$15.50, Louisville \$12, New Orleans \$19, Montreal \$12.

## Grain Tending to Advance.

Prices have been somewhat irregular during the week, but the net tendency of wheat has been advanced while corn and other grains have remained about stationary. Corn meal shows a slight advance, but other feeds and by-products show no special change. The strength of wheat is explained by the recent disappointing returns from the harvest sections, the crop falling somewhat below earlier estimates. But the decline from top estimates is not sufficient to give very much encouragement to those who look for high prices, returns being perhaps ten per cent. below July estimates. The growing corn crop has not been doing so well of late in the great corn belt of the middle West, and a rise in corn would seem to have a better basis than in wheat.

The banner export year in breadstuffs was 1902 with a total of 234,772,000, which compares with second record of 225,665,000 in 1892, 222,618,000 in 1899, 217,306,000 in 1898, 215,990,000 in 1901 and with 200,947,000 in the year just ended—June 30. While the past year is sixth in the list of wheat and flour shipments it heads the list for flour exports, the total being 19,442,000 barrels, against 18,690,000 in 1900, 18,630,000 in 1901, 17,790,000 in 1902 and only 6,011,000 in 1890. In the last-named year wheat exports were the heaviest on record, 100,546,000, against 113,454,000 in 1902, or seventy-seven millions increase as compared with 13,451,000 barrels four decades.

The only shipment of grain from Boston last week was taken out by the steamer Colorado for Hull, England, which had 49,786 bushels of wheat. The steamer that sailed without grain were the Saxonia and Dominion for Liverpool and Saratoga for Glasgow. Two steamers sailed from here this week with grain. They are the Saxonia King for Rotterdam, with eighty thousand bushels of corn and the Pinemore for Antwerp, with forty thousand bushels of wheat.

There is a little section in the county of Franklin known as the apple valley, where the best Baldwins in Massachusetts and perhaps in New England are raised. They grow so thick there on the trees that great records are made in picking them. There are two men who make particularly good records. Two years ago when such a big crop was produced, they picked upwards of fifty barrels per day; last year one picked in one day sixty-one barrels; the day following his brother in another orchard picked the sixty-four barrels, and a little later, one picked seventy-five barrels in a day, for which he received \$9.—Prof. F. S. Cooley, Amherst, Mass.

## Literature.

"The Rose of Normandy," by William R. A. Wilson, is a spirited narrative with a constant breeze of brilliant adventure blowing through its entertaining pages. It takes us back to the time of Louis XIV. of France, and is concerned principally with the misadventures and felicities of an Italian in the service of the grand monarch. The hero gives his sympathy and aid to a man who has cheated the scaffold and the two almost immediately swear an eternal friendship and go out to America with La Salle to join the great explorer in his disastrous Canadian expeditions. The second chapter where the acquaintance of the venturesome pair is formed is strikingly dramatic, recalling some of the scenes constructed by the elder Dumas, and this is followed by equally thrilling incidents on both sides of the Atlantic. As a historical novel, it has the rare merit of being brisk in action, and the dialogue is impressive and free from bombast. The descriptive passages are not too long and serve admirably as connecting links between the more stirring episodes. Love, of course, makes the story go round, and the affection of Henri de Tontil for Renee, the "Rose of Normandy," is made picturesque and winning, especially when the lovers escape from the savages. The customs and manners of the times, both in old and new France, are admirably pictured, and it may be truly said that every chapter in the volume is full of vigorous life. It has points of resemblance to other books of its class, and it shows that the author has not studied the old romances in vain, but he has managed to create many really original situations. It is not a novel to yawn over, but one to follow with undivided attention to its agreeable conclusion. [Boston: Little, Brown & Co. Price, \$1.50.]

A modest volume of poems comes to us from the Golden Gate. It is entitled "Visions and Other Verse" and is by Edward Robeson Taylor, who has acquired considerable literary reputation as a translator from the Spanish of the "Sonnets of de Heredia." Mr. Taylor is a true poet, and he sings with a grace of expression and a fertility of invention that makes his musical numbers always pleasing and inspiring. His ideals are lofty, and he has a catholicity of feeling that will make his verses attractive to people of all creeds and nationalities. He has devoted much of his attention

to both medicine and law, but that has not prevented him from wooing the muse in a devoted manner. One of his most characteristic poems is his tribute to the memory of Prof. Joseph Le Conte, which is full of a genuine pathos that speaks from the heart to the heart. The "Christmas Hymn" is a lesson in faith and trust, as will be seen by the following stanza:

Oh lift us in Thy blessed arms  
Above the fear of old alarms,  
On hope-crowned heights that duty knows,  
'Till thrilled with that divinest air,  
No longer dreaming of despair,  
We shall go on from day to day  
Despite all lions in our way.

The lines to the poets in this volume show a cultivated appreciation of the merits of the works of the greatest American writers. [San Francisco: A. M. Robertson. Price, \$1.25.]

A good picture of Jewish life in this country is given in "A Victim of Conscience," by Milton Goldsmith. Its literary quality is not of the highest, but the author has a genuine gift for character drawing, and he shows the peculiarities of his people without reservations of any kind. He eulogizes their virtues, but he does not attempt to hide their faults, and the result is a fidelity to nature that is captivating. His hero is an intelligent and pious German-Jew, who is unfortunate in the eastern part of this country, and who goes to California in 1850 to win wealth for his wife and children. While there, goaded to fury by his drunken partner, he is guilty of a murderous assault, and he leaves his victim as he supposes dead. The man, nevertheless, recovers, and the two meet again in the east, where the Jew has become a wealthy philanthropist with a conscience that troubles him sorely. The two are, however, reconciled, and the sensitive hero, who is about to become a Roman Catholic to obtain pardon for his sins, turns out to be the benefactor of the man he has wronged and remains true to his own faith, strong in the belief that "happiness is not a matter of any particular religion, but of individual disposition." The story is an interesting one throughout, and the people introduced are fresh and original. If its plot is not wholly novel, [Philadelphia: Henry T. Coates & Co. Price, \$1.00]

In "The Duke and His Double," by Edward S. Van Zile, we have variations on Claude Melnotte and "The Lady of Lyons." The resemblance between the leading character of Bulwer's play and the hero of the novel before us is not strong, but it is sufficiently like to recall the gardener's son and his love for the rich heiress's daughter. Mr. Van Zile's story is ingenious in arrangement, and the way the double takes the part of the real duke has in it an element of possibility, though the tale generally is improbable. It is, however, a clever satire on fashionable doings, the new rich and the efforts of people to get into society by the use of their recently acquired wealth. The incidents may be far fetched, but the characters are distinct types of those who are to be found in what is called high life. John T. Flint, the flour baron of Chicago, has many counterparts in actual existence, and Mrs. Flint, though she suggests Mrs. Macgregor in Sheridan's comedy, "The Rivals," is not overdrawn. The daughters are bright, breezy American girls, with plenty of native intelligence and intellectual culture, and they are altogether the most attractive creations in the book. The duke's double, who eventually becomes the real duke through the opportune death of his cousin, is somewhat quixotic, as the author intimates, but he has many of the good qualities of the well-bred Englishman, even if he does consent to take part in a not wholly defensible social game. The tale is amusing, well written and has that brevity which is the spice of the fiction that we take up to kill an idle hour. [New York: Henry Holt & Co. Price 75 cents.]

Rowan and Isabel, the supreme lovers of James Lane Allen's latest novel, meet us on the threshold. They have loved each other long and they have met to plight their troth. Nature has been kind to them, and theirs should be an ideal marriage of mind and heart; both are of the "first families" of the famous "blue-grass" State, and so they approve of the expected engagement. But Rowan has something to tell Isabel before they venture forth—something from the recesses of his past which has pondered over long, and which his many instincts force him to disclose to the girl of his choice at the present time. But Isabel, when she hears the confession, shrinks from him and flees to her room. That is the beginning of the tragedy of hearts. We do not learn what the disclosure is, but so transformed is the loving and trusting girl into the latter part of the book, but it is sufficient to change the natural course of Isabel's life for a few years, and all but ruin the bright prospects which the world had in store for Rowan. The projected marriage was the dearest wish of Mrs. Conyers, Isabel's grandmother, who brought her, and the broken attachment acts like

Photograph by Chickering.

HIS EXCELLENCY, JOHN L. BATES,  
Governor of Massachusetts.

woman of seventy. She lays siege to Isabel's secret, but meeting with repulse, she turns to others for an explanation of the estrangement. But there are far more pleasant characters than Mrs. Conyers in these pages. Old Judge Morris who had loved and lost Rowan's mother is the young man's champion. He admires the manly frankness of the young man. "I wish I had the right to call it the mettle of a young American," he says, "his truthfulness, whatever he might have done with any one else, there was something in the nature of the young girl whom he did come to love that made it impossible; she drove untutoredness out of him as health drives away disease. He saved his honor with her, but he lost her." "She saved her honor through giving him up," replies Professor Hardage, "but it is high ground, it is a hand-hill top that she has climbed to." "Hardage, we can climb so high that we freeze," the old Judge responded, and then he goes on to say with pride, "I like their mettle, it is Shakerian mettle, it is American mettle. We lie in business, and we lie in religion, and we lie to a woman. Perhaps if a man stopped lying to a woman, by and by he might stop lying for money and at last lying to his Maker."

Thus we have the old tragedy of hearts, pure, honest hearts, and mortality of the highest type set up as the standard. But the future is not hopeless for these two whom God evidently intended for each other. There is a way out, and Mr. Allen leads them not in vain through their months and even years of trial. It is a powerful story which Mr. Allen has written for us, not of life about us, but of the life within us. It is not a story with an intricate plot, startling incident and a theatrical climax. Mr. Allen's art is not in that direction. He has with consummate skill depicted character with a nicety of which few contemporary authors are capable, and what is more he holds up before us a high ideal of manhood. This thoroughly wholesome story might easily fall flat if written by one who was not sure of himself. It bears evidence of painstaking workmanship, of sound philosophy and a keen understanding of human emotions. There is humor in it as well, more humor than the author has before given evidence of possessing, and simplicity and charm of style is stamped on every page. If this finished work of art does not stand as James Lane Allen's masterpiece it will be because he will excel it in the future. [New York: The Macmillan Company. Price, \$1.50.]

Here is a story of English rural life of over a half a century ago which contains a heroine who may fittingly be described as strenuous. Sarah Tuldon, having been brought up by her aunt in a small city, returns to her parents' home to take up the reins of the management of her numerous brothers and sisters, teach them to use soap and water, and transform the interior of the humble house from a walled barnyard to a clean and wholesome habitation. Having conquered at home she flirts with a neighboring warden while her father engages in poaching, and then she turns her attention to David Mockett. David has only recently taken full possession of his father's farm, at an age when most countrymen have sons and daughters grown up. But it had not fallen to simple David's lot to marry, although now, with the new responsibilities which had come to him after his father's death, he needed a wife above everything else. This Sarah Tuldon knew, and in her shrewd way she planned to become David's partner "for better or worse." But it was no easy matter to bring about the final step which she had made them man and wife. David had an uncle in a neighboring town who had picked out a buxom widow for his nephew, and David was persuaded that the widow was to be preferred to Sarah. Sarah did not permit herself to be sidetracked, and after a chase for her soon-to-be husband, which is one of the richest incidents in the book, she captured him. It would be a mistake to conclude from the plot as outlined that the story partakes of a farcical nature. The heroine is a noble, generous-hearted woman, who does a great deal of good, and who makes a model wife, and she may easily be pardoned for her ardor in courting David—who really needed a wife like Sarah. It is a study rather than a story which the author, Orme Agnus, has given us; and for a background we have a vivid picture of the condition of the rural population of England which prevailed in the thirteenth or fourteenth, which would have done credit to Thomas Hardy, with whom this author has been compared. He has given us in Sarah Tuldon not only a "woman who had her way," as the sub-title of the book states, but a fine type of character developed amid most unpromising surroundings, whose very weaknesses only make her all the more human. With a little incident to give zest to the narrative, we have here the life-story of an unusual woman of the common people, whose career we read with increasing interest to the end, overlooking the author's shortcomings as a liter-

ary artist. It is a positive relief to turn from the average historical and social novel to a bright, wholesome character study such as this. [Boston: Little, Brown & Co. Price \$1.50.]

What Julia Ward Howe in her introduction calls "a series of letters inspired by a very fervent friendship, and written in a tone of unreservedness unusual with her," has been given to the public at the present time when the world is being scourged to find something new to say about that growing galaxy of men and women whose names are scarce in the literary armament. Mrs. Howe says that these letters are not for profane eyes. Although all great writers have their romantic episodes, the casual student of American literature may wonder at this romantic attachment of this Puritan woman. We are told that these letters were written at an intensely interesting period of Margaret's life, before the wider horizon of experience had fully opened before her. She was living in New York at the time, in the forties, and the person to whom she addressed her letters was James Nathan, a business man about her own age, who had come from Germany fifteen years previously.

Early in their acquaintance Mr. Nathan struck a note of intimate discussion on themes of the heart of soul, and Margaret's sympathetic nature responded quickly. A reading of the letters as published in part in this volume leads one to believe that Mr. Nathan sought to awaken in this brilliant woman a romantic sentiment without sincerity on his own part. In fact, a letter from a friend to Mr. Nathan makes the inquiry in regard to the effect of his (Mr. Nathan's) friendship for Margaret on his "contemplated foreign alliance." When Margaret was at last disillusioned as regards his sincerity, she writes, "I care not, I am resolved to take such disappointments more lightly than I have. I ought not to regret having thought other of humans than they deserve." In fact, we obtain from these letters a great insight into the character of Margaret Fuller. We have always been impressed with her intellectual powers; now we see her a large-minded, warm-hearted, frank and trusting woman. That she should have had her request to destroy her letters disregarded and their contents, except certain passages, given to a none too sympathetic world, after she had particularly requested that she wanted "the mysterious life that binds us to remain unproven forever" is after all the irony of fate—and the misfortune of most celebrities. But there is in these letters, after all, something besides the ever-interesting sentimentality. In them the Margaret Fuller that we picture in our mind stands forth: "I feel chosen among women, I have deep mystic feeling in myself, and intimations from elsewhere. I could not if I would put into words these spirit facts; indeed, they are not swelling germs as yet, and all I do for them is to try to do nothing that might blight them."

These words are typical of the woman's feelings, and expressions like these made for her friends and enemies. But after all was she not a forerunner of the intellectual woman of the present day, and why should she not give expression to her belief in her powers and her own mission? That she had a romantic side only demonstrates after all that she was essentially feminine at heart. [New York: D. Appleton & Co. Price, \$1.50 net.]

The powers that fix the price of our kerosene have been under public discussion for a great many years, and the net result of denunciation, investigation, legislation and injunctions appears to be the bald fact that the Standard controls ninety per cent. of the export trade and eighty per cent. of the domestic trade; by its control of the pipeline situation it has become quite independent of the railroads; and its dividends have increased from twelve per cent. in 1892 to forty-eight per cent. per year at the time when the book under consideration was written. This study of the "octopus" of the Standard Oil Company was undertaken when he was Ricardo Scholar in Economics at Harvard University in 1900-01. The chief sources of information are the reports of the official investigating commissions and committees, chief of which is the report of the "Hepburn" committee appointed by the legislature of New York in 1897 to investigate railway abuses. The facts are spread before us in this book of 143 pages in academic style, and they are not clothed with the human, personal interest which characterizes Miss Tarbell's history of the Standard Oil, which is now appearing in McClure's Magazine. Those who have followed Miss Tarbell will find recorded in this book the old facts of the rise and supremacy of Rockefeller and his associates, their relations with the great railroads, which sought their business, the collapse of the South Improvement Company and the acquiring of the pipe lines by the shrewd man at the head of this great corporation, men of whom William H. Vanderbilt said "they are smarter fellows than I am a great deal." It is little wonder that contemporary business men secretly admire the persistent, relentless manner in which Rockefeller and his associates forced the railroads to their own terms and remained their dictators in the manner of freight rates. Mr. Montague presents the facts which he has gathered dispassionately, leaving each reader to draw his own conclusion. He says in closing: "The power of the Standard Oil Company is tremendous, but it is only such power as naturally accrues to so large an aggregation of capital; and in the persistence with which competition against it has continued, in the quickness with which that competition when opportunity for profit under existing prices appears, and in the ever-present possibility of competition which meets the Standard Oil Company in the direction of every part of its policy, lies the safeguards against the abuse of this great power."

## Popular Science.

—A tree of yang-yang, which rivals the star of roses as an exquisite perfume, and sells at \$40 to \$50 or more a pound, is the product of an Asiatic tree that reaches its highest development in the Philippine Islands. The tree grows to a height of sixty feet; when three years old begins bearing long greenish-yellow flowers, and at the age of eight may produce yearly one hundred pounds of these flowers, blossoming every month. The attar is obtained by simple distillation of the choicest petals with water, no chemicals being used. Besides its value as a perfume for the toilet and toilet water, the product is prized among the natives as a medicine, being credited with curing toothache and numerous other pains.

—The improved blowpipe of M. Fouché uses only pure oxygen and acetylene, in the proportions of 1.5 volumes of the former to one volume of the latter, and it gives much higher temperature than was obtainable with a mixture of other gases, and it is not so liable to be extinguished by the pressure of the gas as the blowpipe of the old type. The pressure used is equivalent to that of about thirteen feet of water, and back-firing is prevented by the speed of three hundred to 400 feet a second at which the gases issue from the jet. In the hot, greenish cone at the centre of the flame, iron and steel are easily welded, and silica, lime, alumina and soda

are readily fused. For a luminous flame the oxygen is reduced.

—Some multi-millionaire may put a little surplus capital to worse use than by providing an institution for evolving, by selection and training, an intellectual race of dogs. Lord Avebury has shown the possibility of teaching dogs to read to a certain extent. He has taught dogs to read words, to express its wants by choosing words printed "Food," "Out," "Tea," "Bone" and "Water" from cards bearing other words, and has taken pains to insure that the cards shall not be selected by position or by any peculiar scent. The first step in education consisted in teaching the difference between a card printed "Food" and one left blank, and after about ten days the correct card was invariably chosen. It was more difficult to make the animal distinguish between words. Several words were recognized at last, however, and if Van was asked to go to walk he joyfully brought the "Out" card.

—Most blasting experiments with liquid air have proven failures, but the results seem to have been better in recent brick-building work at Munich. Paper cartridges were used, made of spongy absorbent and provided with a detonator. When ready for the blast, the liquid air was brought to the spot in a vacuum-jacketed vessel, and the cartridges were plunged into it until the absorption was thought to be sufficient. The cartridges were then quickly placed and fired by electricity or other means. The effects were equal to those of dynamite, and cartridges taking to explode became harmless in fifteen minutes from evaporation of the air.

—One of the most important English canals, at Foxton, a difference in level of seventy-five feet, was formerly overcome by a series of locks. Through these locks a single small barge carrying not more than thirty-three tons, could pass in seventy-five minutes. The upper and lower canals are now connected by an inclined plane of 1 in 4, and two docks are moved sideways up and down on this incline, one descending as the other ascends. Each dock is an iron trough eight feet long, fifteen feet wide and five feet deep, with water-tight gates at the ends. This novel elevator can pass two hundred cars or trucks in twelve hours, is managed by three men, and cost about \$200,000.

—Evidence that the moon's attraction has an influence upon volcanic eruptions and earthquakes has been found by Rev. E. Espin. A period of between eight and nine years is traced in the records of these phenomena, and this agrees with the period of revolution of the moon's perigee. Further investigation indicates that the greatest volcanic activity takes place when the perigee occurs at its maximum northern declination.

—Great mountains on Venus are a supposed discovery of Herr Arendt of Posen. These elevations appear to project through the clouds from time to time, and the observations thus far made tend to prove a rapid rotation in about twenty-four hours.

—The magnetic pole in northwestern America is supposed to have shifted considerably since its discovery by Ross in 1831. Taking with him seven companions in a small schooner, Amundsen, the Norwegian explorer, expects to make observations on the present site of this pole from 1893 to 1895.

—Adding fine sulphur to the dissolved material, then heating, preferably with pressure, is found by Isidor Kitzke to be more than double the resistance of cellulose as an insulator for electric wires. Flexibility varies with the percentage of sulphur, and resistance to acids and moisture is increased.

The weights of 1173 human brains have been collected by M. Marchand of Marbourg. At the average weight is found to be 9.5 ounces in boys and 9.5 ounces in girls. At the age of one year, two pounds 1.5 ounces and at age one 11.5 ounces respectively; and at the end of three years the weight is 15.5 ounces. The weight is slow. Full growth is attained at nineteen to twenty years in men and sixteen to eighteen in women, the mean adult weight being three pounds one ounce in males and two pounds ten ounces in females. Loss of weight is usually about one per cent. at about forty-eight years and in women at about seventy. Turgenieff, the Russian author, had one of the heaviest brains on record, weighing 47 pounds; and Gambetta's, scarcely 2.6 pounds.

A new French life-preserver is a belt filled with calcium carbide. It is quickly inflated by acetylene on being wet.

## Curious Facts.

—Many years ago the statisticians of the Pension Office made careful calculations to show the number of survivors of the War of the Rebellion for a series of years. They used as the basis for their calculations the mortality tables of the insurance companies, but were far from the way. The old soldiers are dying off more rapidly than was expected. According to the estimate the total number of survivors in 1902 should have been 300,386, while the pension rolls show only 25,100.

—Mr. Powell, a Liverpool merchant, is said to have discovered a process of hardening and toughening soft woods, so that they would be in place of natural hard woods. The treatment consists in saturating the timber with a solution of sugar at the boiling-point. The water is afterward evaporated out, leaving the pores and interstices of the wood filled with solid matter, which is brittle and shows no tendency to split or crack. The process also preserves wood and renders it remarkably impervious to water. Even hard woods are said to be benefited by it.

—The town of Fenton, about fifteen miles from St. Louis, enjoys the distinction of being the only incorporated town in the United States that is not governed by some kind of town officers. It was incorporated half a century ago. It was then supposed that Fenton would be one of the large towns surrounding St. Louis, but it failed to grow, the people became disappointed and did not think it worth the trouble to elect officers.

—Mrs. Frank H. Briggs of Auburn, Me., daughter of Senator Frye, is the owner of a clock she is very proud of. It is a mahogany cabinet two feet long, eighteen inches deep, bound with brass, and it was made to carry the electoral votes for President McKinley from the Senate of the House. Senator Frye was acting as president at the time, and according to usage, received the box, which he presented to his daughter.

—There is in the Mediterranean countries a widespread prejudice against all articles of food, and consequently not more than one house in six is ever heated during the winter time.

—Grand Duke Adolf of Luxembourg, the oldest lay sovereign of Europe, has just celebrated his golden wedding with his second wife. He became duke of Nassau sixty-two years ago, was turned out by Prussia in 1890 and became grand duke of Luxembourg in 1890, on its separation from Holland at the death of King William III.

—That the low-lying territory of the Mississippi should at times be overtopped, notwithstanding if one considers that the "father of waters" draws supplies from twenty-eight States, draining one-third of the area of the United States.

—Since the introduction of the Bertillon system in France twenty thousand articles of crime have been committed and who were concealing their identity have, by means of the system, been identified and brought to justice; and among these not one mistake is known to have been made.

—The great power station now in course of construction for the district railway system of London is remarkable for being the first large electrical power-station to be operated by steam-turbines. It will be a power station of 7200-horse power. Only four field-magnet poles are employed, and the current is produced at eleven thousand volts potential. The generator stores run at one thousand revolutions per minute, in consequence of the rapid revolution and the small number of poles, the diameter of the dynamo is only nine feet, whereas it would have to be more than thirty feet, with reboiling per minutes running at seventy-five revolutions per minute, as at the Metropolitan power-station in New York.

—Only one man in the city of London outside the Tower possesses the password which enables him to answer the challenge of the sentries at any time. It is the Lord Mayor, and the password is given to him by authority of the king.



## A Business Poultry House

# POULTRY KEEPING.

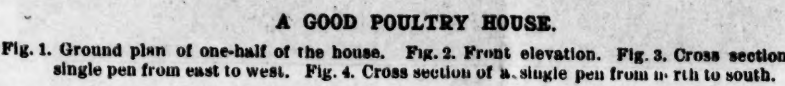
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Eggs and Incubation; Feeding and Care of  
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PRESS.

**WALNUT COMPANY,**

Sample—Probably no strawberry ever introduced has made such rapid strides in the public favor as Sample. It sometimes rusts a little with us about the time the leaves begin to open, but with that exception it is faultless. One of the best growers we plant, making it one of the very earliest varieties to cultivate. Its productiveness is certainly wonderful, the berries laying in heaps and piles around the plants. The berries are conical, smooth with a rich deep color that gives it a handsome general appearance.



very supply. Choice Potato Lima beans are scarce and wanted; Bush Limas and at beans move slowly. Receipts of beans in New York grow less. Marketing beans at very firm prices; some inferior lots, however, together with late arrivals go at easy prices. Tomatoes are a little less plenty, and for fancy, round, smooth varieties the tone is a shade firmer; common kinds without material improvement.

**The Apple Situation.**

Native apples are becoming fairly plenty, but most of them are rather small as yet. The best ones still come from New York and New Jersey. Nearby Astrachan apples and good bring 61 per bushel box. Others are scarce and sell at 50 to 60 cents a bushel.

—Along the border line of Vermont and New York, says the Trade Bulletin, Canadian farmers have had a fine time of late. American buyers are not so plentiful as they were some years ago, and the price for all the

Essex, Windsor	Sept. 28
Franklin, Malone	Sept. 28
Franklinville, Franklinville	Aug. 30
Fulton, Johnston	Sept. 1
Gouverneur, Gouverneur	Sept. 17
Gorham, Bed Corners	Aug. 1
Gouverneur, Gouverneur	Aug. 15
Hammondsport, Hammondsport	Sept. 20
Hemlock Lake, Hemlock	Sept. 28
Herkimer, Herkimer	Sept. 7
Hornellsville, Hornellsville	Aug. 30
Hudsonville, Waterloo	Sept. 11
Lowes, Lowville	Aug. 28
Morris, Morris	Sept. 28
Montgomery, Fond	Sept. 14
Morris, Morris	Sept. 30
Naples, Naples	Sept. 28
Newark, Newark	Oct. 1
Niagara, Lockport	Sept. 17
Oneida, Rome	Sept. 14
Oneida, Oneida	Sept. 14
Ontario, Canastota	Sept. 17
Orangetown, Orangetown	Sept. 17
Orangetown, Middletown	Sept. 17

Barnstable Valley, Barnstable		Sept. 13-14
MASSACHUSETTS.		
Amsbury, Amesbury		Sept. 28-Oct. 1
Barnstable, Barnstable		Sept. 1-3
Blackstone Valley, Uxbridge		Sept. 13-16
Bristol, Taunton		Sept. 22-26
Cambridge, Cambridge		Sept. 17-18
Eastern Hampden, Palmer		Sept. 1-10
Essex, Feosbury		Sept. 22-23
Franklin, Greenfield		Sept. 23-24
Hampton, Amherst		Sept. 22-23
Hampshire, Northampton		Oct. 7-8
Highland, Middlefield		Sept. 1-10
Holland, Hampton		Sept. 22-23
Hingham, Hingham		Sept. 22-30
Hooac Valley, North Adams		Sept. 7-9
Housatonic, Great Harrington		Sept. 30-Oct. 1
Mass. Horticultural, Boston		Oct. 6-7
Marshfield, Marshfield		Aug. 26-29
Martha's Vineyard, W. Tisbury		Sept. 23-22
Middlesex, North, Lowell		Sept. 18-22
Middlesex, South, Framingham		Sept. 18-22
Nantucket, Nantucket		Aug. 25, 27
Oxford, Oxford		Sept. 13, 11
Plymouth, Westport		Sept. 15-19
Spencer, Spencer		Sept. 22-23
Union, Unionland		Sept. 14, 17
Wakefield, Wakefield		Sept. 18-19
Weymouth, South Weymouth		Sept. 17-19
Worcester, Worcester		Sept. 7-10
Worcester, East Clinton		Sept. 15-18
Worcester, West Clinton		Sept. 17-18
Worcester, Southbridge		Sept. 17-18
Worcester West, Barre		Oct. 1-2
RHODE ISLAND.		
Washington, West Kingston		Sept. 8-11
CONNECTICUT.		
Brainford, Brainford		Sept. 9-10
Cheshire, Cheshire		Oct. 5-7
Danbury, Danbury		Oct. 1-3
Guilford, Guilford		Sept. 30
Lyme, Great, Lyme		Sept. 24
New London, Norwich		Sept. 13-17
Orange, Orange		Sept. 18-19
Putnam, Putnam		Sept. 1-3
Stafford, Stafford Springs		Sept. 1-3
Union (Monroe), East		Sept. 23, 24
Windham, Brooklyn		Sept. 22-24
Woodstock, Woodstock		Sept. 22-24

**JAMES BROTHERS, Publishers**  
220 Washington Street, Boston, Mass.

**WALNUT COMPANY,**  
**Box 3954, Boston, Mass.**

berries are conical, smooth with a rich deep color that gives it a handsome general appearance.

The best ones still come from New York and New Jersey. Nearby Astrachans that are good bring \$1 per bushel box. Others

Along the border line of Vermont and New York States, says the Trade Bulletin, Canadian farmers have had a fine time of late. American farmers have taken all the risks of the under-railway and paid big prices for all the

Lockport	Sept. 17-18
Rome	Sept. 14-15
Oneonta	Sept. 14-15
Canandaigua	Sept. 17-18
Middletown	Sept. 18-19

**JAMES BROTHERS, Publishers**  
220 Washington Street, Boston, Mass.



# MASSACHUSETTS PLOUGHMAN

TELEPHONE NO. 3707 MAIN.

The Kaiser has won his own boat race. Hoch, hoch, Meteor!

"Two Quinny men out by a burglar," says a local headline. We trust, however, that they were very seriously offended.

The University of Chicago should draw many a future student from Kentucky on the strength of its refusal to pay that water bill.

Nobody was surprised to find that the report of the eviction of Professor Langley's flying-machine station should turn out to be manufactured out of thin air.

Wise men may object to buying a pig in a poke; but there are plenty of persons willing to gamble on getting more than their money's worth at a railroad sale of unclaimed baggage.

The champagne broken over the Fish Commission's new launch may have belonged to Webster, or it may not. The one indisputable fact is that he never had the pleasure of drinking it.

So there must be a new Pope in Mr. Hall Caine's "The Eternal City," also. Either Plus X. had never read the book or else he may have intended a delicate compliment to Mr. Caine's taste in nomenclature.

Probably few persons are more pleased at not being bow-legged than the man who was recently arrested for murder and released immediately because his legs had not the graceful bend of those of the person for whom he had been mistaken.

The whaling bark Tucker is apparently living up to the old tradition. What with a good cargo of oil and a narrow escape from being wrecked off Hatteras, it is fairly evident that there is still life and excitement in the old New Bedford industry.

Certainly one of the kindest signs of the times are the reports from the various summer meetings of the various sects that there is a greater spirit of charity toward the unsaved. And yet a heathen might imagine that such would be the easiest kind of charity.

We do not believe that the "household aids" will really settle the servant question. There is too much of a suggestion of the spirit represented by the typical New England "hired help," which, so we have been told, is very little help and very hard to hire.

It was not altogether unnatural that the visiting postmasters' high praise for the newspapers should be picked out by the newspapers as the thing to headline; but suppose a plain, ordinary individual should take the same attitude toward a personal compliment?

The other day an unknown person turned up at a home in Somerville and asked permission to dig for buried treasure in the back garden. The episode is obviously suggestive of Kidd; and the ill-success of the digger seems to prove that he was "kidding" under any circumstances.

Is it chivalry or is it selfishness that explains the refusal of the farm hands, out Illinois way, to work in the same field with women? Unless human nature is very different from what it is in New England such a situation leads one to the sad suspicion that they weren't very pretty women, any way.

No, there is no evidence of any tendency in Boston to take legal measures to compel the person in the end seat of the trolley car to surrender his well-beloved position. Perhaps there is a more philosophic realization, than in other sections, that deep down in our hearts we all want that end seat ourselves.

One cannot help involuntarily computing, in one of the anecdotes of the new Pope—"once, when he had come to Rome, he was without a cent and was obliged to borrow \$400 from a bank, nor did he rest easy until it was paid"—how many of the frugal breakfasts, described in yet another of the anecdotes, that \$400 would have paid for.

The Fourth of 1903 seems to have made an unusual record. The latest sign is the ordinance now being drafted in St. Paul, Minn., declaring the prohibition of blank cartridges, bombs, pistols and other noise-making mechanisms. The time may even come when the American householder will again stay in town on the Fourth of July for his own pleasure and not merely to protect his property.

New Hampshire College is fortunate in securing a president who, according to all accounts, has tact and ability to gain the support of farmers and arouse young men to the chances offered through an agricultural education. The need, and the evident intention also, is that the agricultural courses should be made stronger and more attractive.

A judge of a city court stated recently that he had had members of every craft and profession in the prisoners' dock except horticulturists. This confirms the general impression of the sobering, kindly influence of work among fruits, flowers and garden crops. The men who do such work because they like it are usually pretty good citizens and safe as friends.

The suggestion advanced by somebody to the effect that city clerks be hired to work on farms during vacation seems to have met a cool reception. An official of a clerks' society declares that after working all the year, the clerks would hardly care to work vacations also. Even if they were willing it is unlikely that their bodies weakened by indoor life would be able to stand the strain of the sudden change and hard toil in hot weather.

The trouble with the plan of Governor Bates of Massachusetts for using convict labor in State forestry is the expense and difficulty of guarding prisoners engaged in such work. Perhaps, however, a few convicts, selected for good conduct in prison, might be allowed to try their hand at forestry and road-making. Certainly there can be no reasonable difference of opinion as to the duty of providing useful work of some kind. Confinement and enforced idleness are enough to complete the ruin of any man, criminal or otherwise.

The next decade will be the age of the electric roads. Their mileage is gaining

fast on the steam roads, and they are running better cars than formerly at faster time, on better rails and more substantial roadbeds. The nearest lines are much of their own right of way, make quick time and are planning to carry express, mail and baggage. They may be gobbled up by the steam lines in a few years, but they will still be subject to State regulation, and they will do a great work for the country towns.

A good point was made recently by Secretary Wilson in the statement that none of the northeastern experiment stations have done anything to especially improve or develop the horse industry, although the horse, according to the secretary's idea, is the domestic animal best of all adapted to New England conditions. Horse raising may not become a leading branch of agriculture in the East, but its importance is likely to increase. A little of the accurate knowledge and investigation which has done so much for cattle breeders and poultrymen would be a great help to the horse breeders. Some of the experiment stations have been keeping too closely in the rut the past few years.

**A Time for Prudence.**  
The recent furries in the financial world have not as yet caused disturbance in the mind of the average farmer. Now and then however, at the farmers' gatherings and field days, some allusion is made in private conversation to the possibility of a period of hard times and its effect upon the farmers' markets.

Commercial history relates an endless series of prosperous times alternating with periods of depression. Judging from the past, it is only a question of time when the boom period of the last five years will be succeeded by conditions in many ways less prosperous. The only question is when the change will occur and how far it will go. Authorities in the line of business prophecy differ. Some say in a year or two at most we shall have hard times again. They base the notion partly on present indications in the business world, including the fact that Europe has recently passed through a period of hard times just as was the case preceding the depression in 1893, and partly on the theory that depressions occur at ten-year periods, as in fact has been the case to some extent during the past thirty years.

Other experts believe that while the boom period is over prosperous times may continue for a number of years, and many of the facts support this view. Whatever happens, the farmers can stand it as well as anybody. They have gone through hard times before and with safety, under careful management, while other classes have met serious trouble.

But when it looks like a storm the prudent man will carry an umbrella, and if in a bout he will keep near the shore. When the financial skies are a bit gusty, it is no time to launch out into debt for improvements that pay no profit. Hard times are especially hard for debtors.

Fortunately for the farmer, the world must eat, and the farm market would be affected least and last. Such staples as hay, grain, potatoes, meat, butter, milk and eggs will find customers, and prices do not depend wholly on the times. For farm productions of the less necessary kinds, the demand is always less active in severe hard times. At any rate, it is best to squarely face the probability that every year will not be so generally prosperous as those of recent date, and not to be too ready to mortgage the future in hasty ventures.

**Bargains in Land.**  
The cheapness of good farms in New England is coming to be more generally understood. Said Secretary Wilson to a gathering of New Hampshire farmers:

"I think the cheapest lands in America today are your New England farms. People of the West do not look toward the East for cheap lands. They forget that your close contiguity to the best markets in the country makes everything you produce of more value than it is anywhere else."

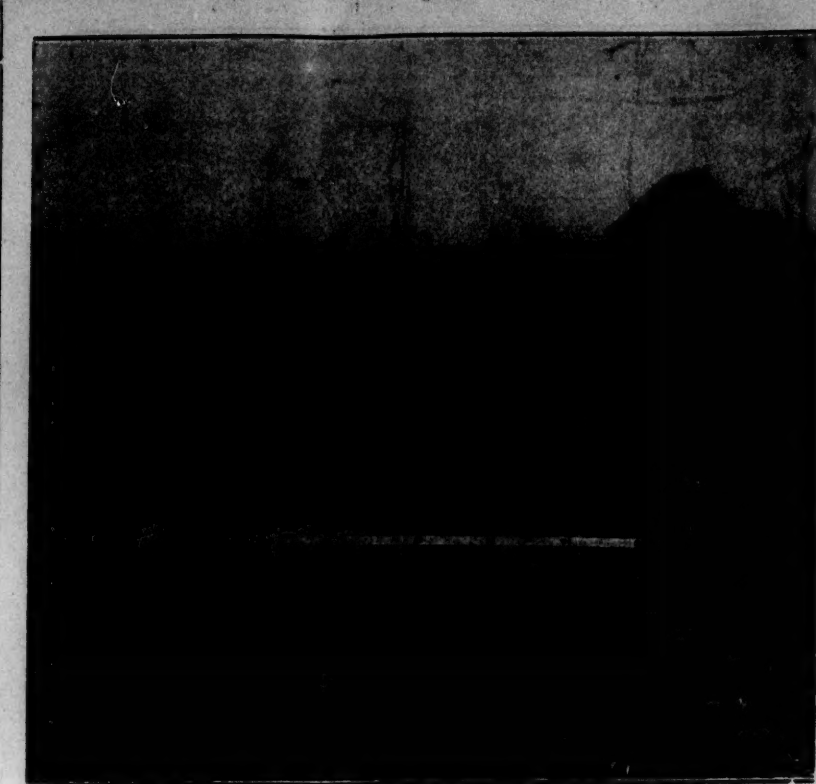
Not only have prices of good clean farm land touched bottom, but they are believed to be gradually advancing in many localities not too far removed from railways and markets. Values are fully holding their own, and the relative advantage as compared with the West grows greater every year. Already the stream of settlers in western Canada is said to have been checked somewhat because land has gone up to \$15 or \$20 per acre. This is paying as much for raw, tough land in a hard climate, rough conditions, as the price of good farms with buildings, improvements and advantages in the East. The real land bargains of the world at present are in the fertile, well-settled valleys of the Eastern and Southern States.

## Effect of Mulching Vegetables.

Mulches cause some vegetables to mature later, while with others no delay was noticed. Late spring and early fall frosts injure mulched plants more than cultivated ones, making it inadvisable to mulch very tender vegetables that require the full season for proper development. Early-spring vegetables, which require only a few cultivations, can usually be grown more cheaply by cultivation than by mulching. Furthermore, very early mulching, before the ground has become thoroughly warm, is apt to retard the growth of vegetables. Summer and fall vegetables, on the other hand, which require frequent cultivation throughout the season, are grown more cheaply by mulching than cultivation. Moreover, the yield and quality of vegetables are often improved by mulching.

Many vegetables cannot be mulched until they have become well established and the weather has become warm, thus requiring some preliminary cultivation. Such cultivation as is commonly given farm gardens is better for most vegetables in early spring than mulching, but mulching is just as surely better in midsummer than the neglect which is the common thing in farm gardens at that time of year. The Nebraska Experiment Station tests have indeed shown mulching to be better in many cases than the most thorough cultivation throughout the summer. Results very favorable to mulching have been secured with cabbage, tomatoes, beans, cucumbers, potatoes and sweet potatoes. In all these cases the yields have been increased, on the whole, quite decidedly by mulching, and the required labor decreased at the same time. Mulched cabbage produced larger heads than cultivated cabbage, and there was less injury from rot. The vigor of tomato plants was decreased by mulching, but the yield of fruit increased. The fruit was also cleaner and less subject to rot. Mulched cucumbers produced perfect fruits during dry periods, when the fruit from the cultivated plants were small and imperfect. The quality of potatoes has not been hurt by mulching, except in wet places.

In case of transplanted onions, saffron, beets, carrots, parsnips, peas and melons the results are not decidedly in favor of



**A FIELD OF THORNY BERRY PLANTS.**  
The result of a suitable soil and thorough cultivation. The beds of J. W. Jones & Son, Allen, Me., here shown, are two and one-half feet wide by actual measurement. The field is intended for stock transplants.

either of the two methods, both the yields and the required labor being about the same. From recent tests it is thought unwise to mulch drilled onions, lettuce and sweet corn. With drilled onions, the stand of plants is usually hurt by mulching. With lettuce, it is also difficult to spread the mulch without injury to the stand, and the crop is harvested so early that it is not worth while to mulch. With sweet corn, the yields are about the same in a normal season whether mulched or cultivated, but this crop requires so few cultivations that mulching is hardly profitable. In a wet season mulching decreases the yield decidedly.

## The Value of School Banks.

In 1479 schools of 118 cities, situated in twenty-four States of the Union, 106,578 children have deposited within the last few years \$1,306,611 in school banks.

A large amount of \$439,732.52 has been withdrawn, leaving a balance of \$439,732.52 due to little depositors on January, 1902. It is thus calculated that more than \$2,000,000 was saved by American children during the twelve years between the introduction of the school-savings plan in 1885 and the date when the estimate we have quoted was made. Such a result should be sufficient to justify the universal adoption of this admirable plan to promote thrift. Aside from the monetary question, the school-savings plan has proved to be a powerful agent of social reform. By its means children who have been taught to take care of their pennies exercise a valuable influence over their parents. It is, moreover, the secret and essence of thrift that it tends to exalt things into higher value. While it consists in the obtaining and putting out of money and decides how and at what limit we must save and spend, it yet moves in the higher ranges of our nature. It looks after little things and points the way to carefulness. It keeps company with all the virtues and antagonizes all the vices. The Long Island City Savings Institution reports that during the years in which the system of school banking has been in vogue in the United States considerable value has accrued to the bank as a result of its participation in the practice of the system. Parents and friends have been stimulated, it has noted, by the example of the children. Thus the list of its depositors and amount of its deposits have greatly increased. Through this means the savings bank has been at slight expense advertised to the public. This is so excellent a report that we trust at no very distant day to see the school-bank system flourishing in Boston.

## Adulteration of Summer Drinks.

The adulterants most commonly found in fruit syrups as well as in bottled soda waters are artificial coloring substances, artificial coloring matter, chemical preservatives and sweetening substances other than cane sugar. Among the flavoring materials prepared by chemical processes in imitation of genuine extracts or fruit juices are artificial oil of wintergreen, artificial vanilla, and various chemicals, chiefly ethers, which are the ingredients of the so-called extracts of strawberry, raspberry, pineapple, banana, peach and some other fruits. Although advertised to be natural, these artificial flavors are the same as the oil from the wintergreen berry or birch bark, and vanilla is identical with the chief flavoring principle of the vanilla bean, extracts made from them lack the delicate flavor of those made from the natural products, and command a lower price in the market. Both, however, are unobjectionable from the sanitary standpoint.

But the artificial extracts made to imitate strawberry, raspberry and some other fruit flavors or flavors are quite unlike the flavoring matters of the true fruits in chemical composition, as well as in flavor, and when taken in ice-cream, confectionery or soda water are apt to produce unpleasant consequences; indigestion and diarrhoea. Often within a half hour after taking them, their artificial nature becomes very evident to the senses of taste and smell.

Among the chemicals used in their preparation are ethyl acetate, ethyl butyrate, amyl acetate, amyl butyrate and other ethers as well as amyl alcohol and a number of organic acids. Various dyes chiefly of coal-tar origin ("aniline dyes") are extensively used to color artificial fruit syrups and slow to give real fruit syrups a more brilliant color. Their use is objectionable, as some of them are believed to be injurious to health and all of them serve to deceive the purchaser.

The addition of chemical preservatives, notably salicylic acid, benzoic acid and boracic acid (borax), is practiced by most of the leading manufacturers of fruit syrups in place of sterilization by heating and other processes which injure the flavor of the product. These chemicals serve not merely to keep the products during transportation and storage, but also after they have been transferred to the fountain or punch bowl of the retailer, and are of great value to the manufacturers in their efforts to meet the demand for products that will keep until used, even in the hottest weather. Because of their probable in-

urious properties they are not fit ingredients of food products.

The sale of fruit syrups or soda water containing any of these preservatives, except with a suitable label, is illegal. Glucose and saccharine (the coal-tar product, with five hundred times the sweetening power of cane sugar) are used to a limited extent in fruit syrups.

## Spraying the Aroostook Potato Crop.

A few years ago the process of applying a solution of paris green on a twenty-acre field of potatoes with a hand sprayer or a blow gun was a job to be dreaded, and took a number of days. Now it is easily accomplished with a barrel sprayer on wheels automatically arranged so that the revolving wheels drive the force pump that is so adjusted that it sprays four rows at a time, while the farmer drives the team and rides on a comfortable seat. A forty-acre field can be sprayed in a day.

A large amount of bordeaux mixture is being used on the vines as a preventative against the blight or rust that occasionally appears on the vines early in the season, stopping further growth and rotting the tubers in the ground. This mixture is composed of lime and vitriol usually mixed with the paris green and applied in the same manner. Many of our best farmers have applied it for some years and have advocated its use, but until this season it has not been generally used. Many looked upon it with suspicion.

But facts are stubborn things. Last season where it was used the vines remained green until killed by the late autumn frosts. Other fields where it was not used, the vines were blighted and dead early in the season and the yield not more than one-half or two-thirds as great as the adjoining fields where the mixture had been judiciously applied.

New Sweden, Me.

## Notes from Rhode Island College.

Several important conclusions have been reached by the horticultural department in the spraying this season. It has been found that bordeaux mixture of the strength of 2½ pounds copper sulphate, 2½ pounds lime, fifty gallons water, is injurious to peach foliage, that it does not stop leaf curl, and they believe from this and other experiments that if the curl appears in spite of early spring spraying, it is better to leave it alone rather than try to treat it. The plums also show great difference in their power to resist bordeaux mixture. It has been generally considered in the past that the Japanese varieties were most tender. In this year's treatment the Japanese varieties have shown more resistance to the spraying while "Rolling stone" and some other of the American types have been injured.

Lettuce, celery and strawberries have been set out under cloth covers similar to those used in Connecticut for the raising of tobacco. It is too early to draw final conclusions, but so far fully twenty-five per cent. more of the plants transplanted under the shading lived than those outside. Besides securing a better stand of plants, those under the cloth are making much better growth than those in the open.

Dr. A. C. Scott, professor of physics and electrical engineering at the college, has accepted the professorship of electrical engineering in the University of Texas at Austin, and will assume his duties there early in the fall. Dr. Scott is a graduate of the Rhode Island college, and has been a very successful teacher along his lines. The promotion is a deserved one, but his leaving will be greatly regretted both by faculty and students. Dr. Scott has succeeded in equipping his department in a very complete way, and visitors are constantly surprised to discover how large are the facilities, especially in electrical engineering.

Another of the employees of the college to be recently promoted is Mr. W. D. Hurd, who has been doing the demonstration work during the summer. Mr. Hurd has been elected professor of crop production in the University of Maine. Mr. Hurd has made many friends among the farmers of Rhode Island, and has proved the value of the appropriation made by the last Legislature for the purpose of giving demonstration lectures among the people.

The college is in personal communication with a large number of young people throughout the State, and judging by the inquiries and responses, a new interest is being aroused in the college. The outlook is that a satisfactory increase in students will come with the opening of the fall term. The work and investigation of the recently created demonstration department of the Rhode Island College at Kingston has brought out more prominently than was realized before some very important things connected with Rhode Island agriculture. The demonstrator in his travels throughout the State has found the majority of the work to center around two principal things, namely, how to produce better grass crops and how to combat several insects and diseases, the one most asked about being San Jose scale.

It has been commonly known to the experiment station staff for some years that most Rhode Island soils are decidedly acid. Out of about 150 samples recently tested

145 showed a strong acid reaction. Most of the different grasses, and especially clover, will not thrive under such soil conditions. After land has been needed down a good crop is obtained the first season; then "sorel," "five-finger," moss and other worthless weeds, which thrive best in this acid condition, crop in and gradually drive the grass out. The remedy for such soils is liming with from one-half to one ton per acre, according to the character of the soil (heavy land requiring more than light, sandy land), applied at the time the meadow is seeded down.

The question of fertilizing in this connection is an important one. After seeing the results obtained on the experiment station grounds, several prominent men in different parts of the State are using commercial fertilizers in the place of stable manure. To try the difference between the two, one man near Woonsocket applied fifteen cords of stable manure, costing about \$90, to an acre. To another acre of land lying beside the first one, he applied lime costing \$11, and commercial fertilizer costing about \$14, the total cost being about \$25. Last week when this farm was visited, the grass under the lime and commercial fertilizer treatment was taller and thicker than the acre costing over three times as much. Of course, it would be necessary to topdress, each year, with commercial fertilizer, the acre which did not receive the manure, to get the best results. But it is fair to expect just as good a crop the fourth season as the first, while in the probably the grass on the manured plot, after that lapse of time, would become very much run out.

It has been found, too, that farmers have been paying about one-third more for plant food in the ready mixed fertilizers than they would need to pay for the same amount, if purchased in the form of the separate elements and mixed at home. Recently a farmer brought a sample of fertilizer to the college station for analysis which was found to contain over fifty per cent. sea sand. These show that a few of the many ways the experiment station can help the farmers, if they will but turn to it for aid.

It was not generally supposed that San Jose scale had obtained a very firm foothold, but upon investigation it is found that certain sections are in great danger of having the trees and shrubs killed unless extreme measures are taken to provide for its control. Providence, Woonsocket, East Greenwich, Belleville and several other places are badly infested. Of course, it is impossible to kill the older scales while the foliage is on the trees, so this part of the work must be left until winter. Just at this season of the year the young are moving on the branches of the trees and can be killed by using a kerosene emulsion weak enough so that leaves are not injured. The wash for summer treatment which has so far proved successful here is prepared by dissolving one-half pound whale-oil soap in one gallon hot water. To this add two gallons kerosene and work through the pump until a perfect emulsion is formed. To every gallon of kerosene used add ten gallons water. It is evident that some more stringent laws relating to the shipment of trees and the control of these pests in this State are needed.

## Mr. Clark's Hay Crop.

I have just completed cutting my first crop of hay. We commenced July 6, ending July 31, requiring fifteen days. Last year's total first crop was sixty-four tons, 874 pounds of dry hay; this year, first crop was fifty-five tons, 739 pounds, nine tons less than last year.

The loss was due mostly to three causes: First, lack of intense cultivation before seeding of six acres in September, 1901, on account of a cloud burst which washed most of the intensely cultivated soil off the field ten days before seeding. Second, a two-months drought in spring. Third, the fertilizer was applied six weeks without rain. These three causes cut the yield down so that the average product was but 7540 pounds, a little less than four tons per acre; the seven-eighths acre, seeded now fourteen years, cuts twenty-six first and second crops before this year, a total of 104½ tons. This year the first crop cut 12,410 pounds, making a total product in twenty-seven crops, one seeding, fourteen years, 111 tons, with the second crop now growing. Last year the two crops were 8½ tons, this year they will exceed nine tons. The average per acre this year on this field, first crop, is seven tons 176 pounds, and on the five-eighths acre adjoining seven tons eighty pounds. While the sum total is less, yet a portion of my field is heavier than ever before, notwithstanding my fertilizers lay bleaching six weeks in the sun without rain.

Much has heretofore been said about the weight of my hay, whether put in the barn dry or otherwise, and also what green grass in drying would shrink. I have made some tests this year with the following results: I have taken from several sections five square feet of grass, and found the following results: Four pounds two ounces of hay, mostly all timothy, produced when dry 2½ ounces hay, or 13,638 pounds of hay to the acre; four pounds three ounces, mostly all redtop, when dry produced twenty ounces, or 10,880 pounds to the acre. Four pounds six ounces timothy and redtop mixed 25-16 ounces, or 13,706 pounds to the acre. In another section, mostly redtop, 4½ pounds when dry made 2½ ounces hay, or 14,021 pounds to the acre. Another section, four pounds five ounces, a little less redtop, 2½ ounces, or 13,638 pounds to the acre. On another section two pounds mixed when dry 9-10 ounces, or 8206 pounds to the acre. I have kept track of the weights of the hay on these several sections per acre, and they made a few pounds more to the acre when dried out than indicated by the samples.

The directors of the Connecticut Agricultural College wish to have me save a few specimens of hay from my field to exhibit at the St. Louis Exposition in 1904, which I have done. I have no doubt, however, that many will be surprised at the height of the grass, judging from many of the thousands of letters that I have received in the last few years. Many suppose that six tons of hay or more to the acre means tall coarse grass, but it is exactly the reverse. It means a dense growth of fine grass, five to six hundred spears to the square foot, forty to forty-five inches in height, will make six to seven to the acre, every six inches in height of my grass containing five to six hundred spears to the square foot, will produce a ton of hay to the acre, and it will be as fine as silk. Intense cultivation and care is the only thing that will make big crops of hay. If you send me a two-cent stamp I will send you a grass circular that will tell you how six tons of dry hay to the acre can easily be made. I have written more than twenty thousand letters in the last two years and sent out one or more of my grass circulars with each letter to tell my friends how. I have led the way, but am glad to now say that many are beating me; still the good work goes on.

An impression has to some extent prevailed among the farmers that this theory of intense cultivation and large hay crops, so often spoken of by me, was introduced for the sole purpose of benefitting the Cutaway Harrow Company. To all such I wish to say that as early as 1872, as president and mechanical manager of the Higganum Manufacturing Company, twenty years before the Cutaway Harrow Company was ever thought of, the Higganum Manufacturing Company commenced to manufacture drag plows, both regular and reversible, and I at the head of the mechanical department made and completed over four hundred different sizes and styles of drag plows. In the completion and test of these plows, I turned I used sixteen acres of this old rocky land to test the strength of these plows, as this field would be ample and quick.

We, the old Higganum Manufacturing Company, made at one time over eighty thousand drag plows per year, and in testing these new plows came the finding of the value of intense cultivation. With the aid of such men as J. H. Hale, Mortimer Whitehead and other advanced agriculturists, the practice of intense cultivation has been developed during a long term of years. The science had been growing gradually, long before the harrow company was started or ever thought of; in fact, it has been but a few years that I have allowed my name to appear in connection with the business of the Cutaway Harrow Company, for the reason that people would say, "All Clark is after is to push the Cutaways." It was not until Prof. Albert E. Cook, professor of English in Yale College, said that I should by all means allow my name to appear in connection with the Cutaway Harrow Company, that I allowed it to remain. This is the origin of intense cultivation and large hay crops. Whether the Cutaway Harrow Company lives or dies, the main idea has come to stay.

Higganum, Ct. GEORGE M. CLARK.

G. D. Wilson of Pease, Ill., is perfecting arrangements for the "farmers' national jubilee" to be held at the world's fair at St. Louis next year. He announces that there will be a convention of farmers held in St. Louis, Oct. 14, 1903, made up of delegates representing the various parts of the United States. He expects to consult with the delegates of this convention in regard to an appropriate programme for "farmers' day" at the fair, which will be Sept. 13, 1904.

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The only practical Calf Feeder. The only reliable method of raising calves. No more "teaching the calf to drink." Promotes digestion. Prevents scours. Adds to the value of the calf, whether intended for the dairy or for veal. Price of Feeder, \$1.50, postpaid. Agents wanted in every State. Send for this paper.  
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## Our Homes.

## The Workshop.

**LADIES' KNITTED BED SOCKS.**  
During the summer months, when one has plenty of time at the beach or in the country, he can knit these useful things for the coming winter. Some people always have cold feet.

**Materials**—Five skeins pink or blue four-fold Germantown yarn, 1 pair steel needles No. 14, 1 fine bone crochet hook.  
Cast on 126 stitches, knit back and forth garter stitch for twenty rows or ten ridges. 21st row—Fifty-seven plain, slip 1, 1 plain, pass slip stitch over, 2 plain, narrow, 57 plain.

22d row—Purl or seam 56, slip 1, purl 1, pass slip stitch over, purl 2, purl 2 together, purl 56.

23d row—Fifty-five plain, slip 1, 1 plain, pass slip stitch over, 2 plain, narrow, 55 plain.

24th row—Fifty-four plain, slip 1, 1 plain, pass, purl 2, narrow, 54 plain.

25th row—Purl 53, slip 1, purl 1, pass slip stitch over, 2 plain, purl 2 together, purl 5.

26th row—Fifty-two plain, slip 1, 1 plain, pass, slip stitch over, purl 2, narrow, 52 plain. Repeat from 21st to 26th rows, having 1 stitch less each side of the narrow stitch, until there are 6 ribs of knitting and 6 ribs of purling, or 54 stitches on the needles. Now knit 1 plain row and 1 seam row.

Next row—Plain, (\*) over, narrow, 1 plain. Repeat from (\*) to end of row. Now purl 1 row and knit plain 1 row. Knit 2 plain, and seam 2 alternately for 4 or 5 inches, keeping ribs correct, and bind off. Crochet a shell border on top.

EVA M. NILES.

## Health in Hot Weather.

Dr. Wiley, the chemist employed by the United States Secretary of Agriculture, says:

"The devil lurks in the soda-water fountain and iced tea is simply suicide. If persons would only use precautions there is no reason why one should suffer more from sickness in summer than winter. A few of the most delicious and palatable edibles, as well as drinks, have got a bad reputation as producers of summer sickness when, in fact, the whole trouble is due to the careless preparation of food and drink and the too lax law as to inspection."

"One of the most flagrant causes of sickness in summer is entirely overlooked by law, and that is the preparation of soil for growing vegetables for the market. I have on several occasions called attention to the danger of eating vegetables grown on or under ground which have been exposed to contamination by sewerage, city waste or garbage."

When Dr. Wiley was asked if the use of eat is unhealthy in hot weather he said, "Of course that is the general idea, but, in fact, meat is much more easily digested than starchy vegetables and is both nutritious and condimental. While vegetables are satisfying to the appetite, they are watery and furnish little nutriment, their qualities being condimental and mechanical. Meat, good bread, potatoes and milk free from germs is the diet to be relied upon at all times for good health."

"Good bread should be the foundation of every meal, and too much care cannot be given its preparation. Bread and butter, with some agreeable drink, will make a luncheon good enough for any one. Little children should be encouraged in the old-fashioned habit of bread and butter eating, and let bread, butter and sugar take the place of indigestible sweets, such as rich pastries, puddings and cakes."

## What to Drink.

The best thing to drink water or other liquid quantity is on rising, an hour and a half before luncheon and dinner and half an hour before retiring.

Generally speaking, people do not drink water enough, or if they do, it is at the wrong time. Water may be taken at the close of a meal, but if many glasses are drunk with meals, disorders of digestion may follow. In fact, the desire to drink water copiously at mealtime is often an evidence of indigestion. Not more than two glasses of water or other liquid should be taken at meal-time, and practically no water should be taken when soup is served.

Hot water may be taken on rising and retiring for those who are sensitive to cold during the winter months. Hot water is soothing and quickly absorbed. It stimulates the secretion of bile, especially if the liver is repeatedly signaled, by taking the water in sips. Cold water in the morning is to be preferred if there is constipation.

Pure water washes waste products from the system, but impure water, although it may be rendered safe by boiling, is of little use in removing waste from the system. The protracted use of hot water internally is debilitating, as is also the too free use externally. Ice-water, unless sipped slowly, retards digestion. Water that is refreshingly cool at mealtime is often an evidence of indigestion. Not more than two glasses of water or other liquid should be taken at meal-time, and practically no water should be taken when soup is served.

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## Buoyant Middle Age.

Half a century ago a man of forty-five was regarded almost elderly, and a woman of the same age was expected to have long since outlived herself. All this has changed in a particularly interesting way, of which the prominent feature is a seeming contradiction. If the three-year-old child of to-day is as knowing as was the six-year-old of half a century ago and the ten-year-old boy of to-day is in many respects quite as much a man as was his grandfather at eighteen, one might naturally expect that in due gradation the modern middle-aged man should be old beyond his years. But such is not the case.

Middle age, so far from hurrying on into senility, so far even from standing still, would seem actually to have stepped backward and marched alongside of youth. There is a jaunty, buoyant, an elasticity, about the middle age of today at which our fathers would have shaken their heads as uneasily. The gulf which once separated the middle-aged parent from his children has been filled up. The curtain which shrouded the middle-aged man generally from the eyes of youth and which caused him to be regarded with respect if not with awe has been lifted, and in obedience to the same influences which have made the schoolboy and the regimental officer almost the comrades of his men, the middle-aged man of today is never so happy as when working or playing upon an equality and actually in connection with youth.

As with men so it is with women. Social satirists tell us that the age at which women are considered most eligible for marriage has been very notably advanced of late years, and we know that the lament

of many a matchmaking mamma is that the most dreaded rival of her darling are not to be found so much among the girls of her own age as among women who not many years ago would have been regarded to the ranks of hopeless old maidhood. The fact that the middle-aged lady of to-day is much younger in manner and tastes is of course not the only reason for this, but it is among the most potent.—London Spectator.

## Fear of Sunstroke.

The liability to heat stroke during the sudden hot spells is an ever present condition which must always be taken into account, especially by persons who may be exposed to the direct rays of a scorching sun. As no one can be considered absolutely safe against an attack it behooves all to be on their guard against the accident. The seriousness of the threat cannot be too gravely considered at a time when the most confidently secure individual may suddenly drop in his tracks and either die in a stupor or become more or less of an invalid for life. Even a rapid recovery from a first seizure is in itself a great calamity, as the victim is always prone to a repetition of attack on the slightest provocation.

All this goes to prove the prime importance of such preventive means as may be at command. While we cannot entirely dodge the sun, we can, in a measure at least, mitigate its effects. How to do this is not always properly understood.

The question of adaptation to conditions does not appeal to individuals as it should. If it were otherwise many lives might be saved. The weak and ill-nourished individual is always more predisposed to sunstroke than the stronger one. Hence the feeble and faint person should never tempt fate by trying to work in the sun during a heated term, especially when it is made more oppressive by reason of increased humidity.

The habitual drinker comes next on the list of victims, and even the casual imbibitor is never safe. So well has this fact been proven that no spirituous stimulants are ever allowed to armies on a hot march. The medical officers who have served in tropical countries are so unanimous on this point that no contrary argument can hold.

In the matter of proper dress for hot climates they can also be considered as leading authorities. The protection of the head and back of the neck against the burning sun is, according to their view, of the first importance. The cork helmet, lined with yellow or red flannel to neutralize the heat rays, although considered the best for its purpose of heat protection, can hardly become the fashion here, but an imitation of its principles of construction might be of service. The ordinary yellow straw hat, the soft, light-colored felt and the Panama are suitable and efficient substitutes.

It is generally agreed that thin woollen undergarments are least affected by heat rays, while at the same time they most readily absorb the body exhalations. For such work in the sun with a single covering for the back and chest, the old-fashioned red flannel shirt is, on account of color and texture, an excellent garment. For the outer clothing loose-meshed, light-colored woolen or cotton fabrics serve a good purpose. The instinct for coolness is thus well explained on the scientific basis of the chemical, or heat rays of the sun.

The diet in hot weather should be sufficient for good nutrition, of digestible quality and plain character. Iced tea is generally voted to be the most refreshing and safest of the cooling drinks. This sounds strangely enough in view of the many alluring concoctions of the soda fountain and public bar. In spite of the prejudices to the contrary, the cooling effects of the beverage are most lasting and beneficial, and there are the extra advantages in its favor of promoting perspiration, stimulating heart action and eliminating respiratory products. Even with such general precautions it is wise to be on the sharp lookout for any of the many premonitory symptoms of prostration. These signs of danger are sudden weakness, palpitation of the heart, dizziness, headache, hurried breathing, nausea, and arrested perspiration. Under such circumstances it is always proper to desist from every exertion, mental or physical, take to cover and summon medical aid. Often by prompt action what might otherwise be a fatal stroke may be effectually averted.—N. Y. Herald.

## Colors Affect the Nerves.

If purple walls and red tinted windows surrounded you for a month, with no color but purple around you, by the end of that time you would be a mad-man. No matter how strong the brain might be, it would not stand the strain, and it is doubtful if you would ever recover your reason, for purple is the most dangerous color there is in its effects on the brain, which it reaches by way of the nerves of the eye. A splash or two of any other color in the room would save your reason for some time longer; but dead purple would kill you eventually as surely as would foul air. Scarlet is as bad, but scarlet has a different effect. It produces what is called homicidal mania—a madness that drives its victim to kill his fellows, especially his nearest relatives. Even on animals scarlet has this effect. It will drive a bull or a tiger to charge a naked spear. But purple, on the contrary, brings on melancholy or suicidal mania.

Blue, as long as there is no trace of red in it, stimulates the brain and helps it, but its effect on your nerves, if you are saturated with it and get away from it, is terrible. Scientists class blue as a kind of drag in its effects on the brain.

It excites the imagination and gives a craving for music and stagecraft, but it has a reaction that wrecks the nerves. If you doubt it stare hard for a few minutes at a large sheet of bright-blue paper or cloth—not flowers, for there is a good deal of green in their blue—and you will find that it will make your eyes ache and give you a restless, uneasy feeling.

Green, on the other hand, is the king of colors, and no amount of it can do any harm. On the contrary, it soothes the whole system and preserves the eyesight. If you were shut up in an artificial green light for a month it would develop your eyesight immensely, but it would be fatal, because when you returned to the world you would be utterly unable to stand ordinary lights and colors and you would certainly contract ophthalmia, or possibly destroy the optic nerve altogether unless you were very mindful to take great care.

Most people imagine the sky in clear weather to be blue. It is really white tinged with green. It is only the distance and clearness which makes it seem blue.

Green is so soothing that it makes a big difference in the length of an illness, helping the system to fight the disease, and nearly all hospital wards have every possible detail about them colored green. Sage

green is the most soothing tint of all; metallic green, however, is by no means so good.

Solitary confinement in a yellow cell for six weeks will hopelessly weaken any system and produce chronic hysteria. A long course of it will produce foolish lunacy, and even on a guinea pig or a rabbit will drive the animal at last to bite and wound itself or reduce it to such a state of nervousness that it will die of sheer fright if suddenly startled.

On the other hand, if you are not smothered with it yellow is the healthiest, cheeriest color there is, and will make a dark room bright and habitable when even green would be cold and depressing. But to be well "soused" with yellow day and night, and to be unable to get away from it, would bring you to nervous madness within two months at the outside.

Stained and white, unbroken, will destroy your eyesight as surely as catnip would if you are exposed to it for a few days—a week at the latest. It kills the optic nerves, and the sight goes out like a candle, and the effect on the brain is so maddening that blindness is almost a relief.

This is why arctic explorers have to wear colored "goggles" of green tinted glass; otherwise "snow blindness," as it is called, and which is really "white blindness," is almost a certainty. Even in the polar regions, though, the white is not complete. The sky breaks it. If it did not no man could keep his eyesight there without glasses.—New York News.

## Concerning Flies.

The common house fly is above all things else a scavenger. No doubt the flies were intended to serve a good purpose by destroying filth and waste, but in their work they are liable to do serious harm, to say nothing of the constant annoyance which they cause. It is believed that flies are effective disseminators of disease germs. Coming, we will suppose, from a heap of offal which contains the germs of typhoid fever, they enter the dwelling house and light upon some article of food. Is it not reasonable to suppose that they may bring with them some of the minute organisms which develop this destructive disease? If the fly could be confined to his proper place, which, as I said in the beginning, is that of a scavenger, he would serve a valuable purpose; but, like some human beings, he may cause much trouble when he goes outside his appointed sphere. The flies should be kept out of the house as completely as possible by closely screening doors and windows. For destroying flies after they once enter the house I recommend the common wire "spatter," which may be bought for a nickel, as safer than placing poison or even fly paper in the room.

The fly forms an interesting study for the scientist. It has been estimated that he can multiply himself two hundred times every twenty-four hours. A new-born fly becomes full grown in four or five days. He feeds on both liquids and solids, his favorite foods being perspiration and saliva and the juices of decaying meats and vegetables. He reduces solids to liquids before swallowing them. It is said that a fly is supplied with seven thousand eyes, each eye being separate and of peculiar construction. When alarmed he can travel twenty or thirty feet in a second, but he can also fly leisurely. The fly has no lungs, but breathes through pores, protected from dust by fine filmy fibres that look like exquisite lacework. After a series of calculations and experiments, it is thought that the fly is enabled to walk on a vertical glass surface or on a smooth ceiling by what is called capillary force; that is, the molecular action between solids and liquids. The insect's feet are covered with thousands of fine hairs, each of which terminates in a ball. Through these hairs runs a thin liquid that coats the foot in a thin film at the end. When several thousands of these drops have been fastened to a window-pane or ceiling, the fly is able to walk on the smooth inverted surfaces and has no difficulty in releasing himself instantaneously. This is the theory of Rombout, a French entomologist. It used to be thought that the fly's feet are cup shaped and that he is enabled to walk on ceilings by the suction caused by the cone-shaped feet. This latter theory was overturned by putting flies in a vacuum, where they climbed a glass surface as easily as in the open air.—N. Y. Tribune.

## The Wisdom of Little Vacations.

A veritable gospel might be preached at this time of year on the pleasure and profit to be derived from little excursions of a day or two days duration. When you start up for a vacation, you are not only free from the feel like doing, without great preparation and far more because you want to have a holiday than because you are due to recreate at just that time, there is frequently deeper pleasure to be obtained from the journey than in the long-planned, much-talked-about and greatly anticipated "vacation." It is highly important, however, that a cheerful disposition, to make light of the little annoyances that one is sure to meet during an excursion, is taken along with one. And another valuable equipment in such travel is the sociability that gets whatever of information or entertainment any other passenger may have to offer. These two things are as important assets as delight in the scenery through which one passes on the way. A third excellent accompaniment to the short trip is the ability to enjoy luncheons which fit the occasion. Men are far more apt to possess this than women, for men ordinarily choose their food with considerable respect for the joys of the table. It is, however, the exception, to see women getting the most possible return out of the opportunities the little vacation affords for change of diet and the indulgence of mitigated epicureanism. Members of the weaker sex frequently take long harbor calls and exhausting trolley excursions fortified only by sandwiches and hard-boiled eggs. Somehow they seem to consider a liberal allowance for lunch utterly extravagant. Not that women object to money-spending, only the money-spending that results in "nothing to bring home" with them. The man's way is far wiser. In almost any of the little towns or pleasant watering places to be reached by trolley or steamer there is at least one pleasant, cool, well-equipped restaurant, a meal in which adds greatly to the enjoyment of one's trip. To search out such places and recommend them when once found should be a part of every such little excursion. The traveler who most deliciously characteristic of the place should be eaten there, leisurely eaten, too, with the tranquility of mind which insures good digestion, and without any thought, whatever, of return conveyances or other such soul-racking problems. To enjoy life while one can is an admirable plan. The present hour is all we have, all we shall ever have. The carpe diem "of Horace, the combined wisdom of Whitman and Emerson, the whatever of whatever companionship chance throws in one's way, and the bubbling philosophy of

Omar Khayyam, all urge, and rightly, to this attitude toward life. Particularly does one need to have assimilated their teachings if one is to enjoy to the full the little vacations which summer affords.

## The Songs of the People.

Whoever it was that first said "Let me write the songs of the people, and I care not who makes the laws," put his or her finger upon a very vital point in life. It is a matter of cold fact that the songs of a nation exert a tremendous influence upon the nation's life. This truth has now inspired one of the most interesting patriotic movements of the day. The Massachusetts Daughters of the Revolution have issued a postal-card, the design of which shows an old-fashioned choir singing a verse set to music by Billings. The proceeds from the sale of this card will be devoted to a fund for the erection of a tablet to the early composers of music in New England, a memorial which the society hopes to place in our Boston Public Library at an early date.

Whether the tablet will commemorate those who wrote the verses as well as the tunes of our favorite old songs is not made clear. But the Revolutionary ladies are consistent they will put the two halves of a perfect whole together on their tablet. For, while it is impossible to think of such a song as "The Old Oaken Bucket," without its accompanying tune,—as important to it as the hand is to the arm,—it is equally impossible to hear the tune without murmuring the words which Samuel Woodworth, the people's poet, was born and reared in quaint homely Scituate, wrote for the song. The same thing is true of "John Brown, the Charles Town man, who produced that splendid hymn "Coronation." And it is true in superlative degree of Rev. Samuel Smith, who wrote our national song to music composed by England. There is such a thing as pushing a matter too far, however. One of the magazines has recently undertaken a collection of State songs, and is urging its readers to forward to the office of publication what they consider the song of their State, and—if there should be none extant—what one is written. To mind there is a little use in pressing the "songs of the people" analogy so far as this. Unnecessary and unpleasant wrangling over the choice of a song would be the first result, while afterwards would come undue insistence upon State allegiance to the ballad selected. The most that one can wish to feel in these days,—besides loyalty to one's town or city, and loyalty to the nation—is loyalty to one's section of the country. This is indeed, it seems to us, all that it will be well to feel. The fact that you are from Massachusetts, while your steamer companion is from Maine makes no gulf between you. But both of you are from New England, and that constitutes a bond. And so it is with people who call themselves Southerners, with those from the middle Western States, and those from the Pacific coast. We have had trouble enough in this country in the past from over-emphasis of State allegiance. Even under the guise of fostering music there should be no recurrence to this thought.

## Domestic Hints.

**FLITTES OF WHITE FISH.**  
"Fine herbs," as applied to several dishes and to "saucy aux fine herbs," means mushrooms, shallots or green onions and parsley minced and mixed together in a light brown sauce. Take whitefish when fresh and fry, on the two sides from the back bone, then holding them flat on the table allow them the flat way again with a very sharp knife to make thin places. Cut each slice into three, then place them in a buttered baking pan to have the bones side up, and lean one against the other until the pan is full. Chop half a can of mushrooms, four young onions and a handful of parsley together and stew them among the fillets, also a dredging of salt and pepper, some bits of butter and the liquor from the can of mushrooms. Bake about half an hour, basting twice with a little light-colored veal gravy. Serve one fillet and potatoes in some special form on the same plate.

## STUFFED TOMATO SALAD.

Select perfect fruit with stems on. Remove a slice from stem end, then remove the pulp very carefully and use this to make the salad. Fill the shells with chicken, shrimp or cabbage salad; replace tops; drop tomatoes into cups which will leave an inch all around. Simmer the pulp with one pint of water, spices and herbs, for ten minutes. For ten minutes add two tablespoonsful of gelatine, softened in little cold water; when dissolved add enough vinegar to suit; place a tablespoonful in bottom of cup; set on ice to become firm; then fill cups and allow to become firm. When ready to eat, dip into hot water a second and lift out onto bed of cream.—What to Eat.

## MAYONNAISE DRESSING WITHOUT OLIVE.

One-half cup of lemon juice, one-half cup of water, two tablespoonsful of dry mustard, six whole eggs well beaten, one cup of butter (not melted), one cup of oil, one cup of vinegar, one cup of salt, pinch of cayenne pepper. Heat these ingredients in a double boiler, but do not boil them. When the mixture begins to thicken, take it off the fire, let it cool, and then set it on ice. This dressing will keep a month.

## SOFT SHELL CLAMS FRIED.

This is a large kind of clam with a brittle shell. Cut off the leathery dark portion that projects from the shell and remove with knife and finger the beard and string from the inside. This leaves the clam in the ring shape which they come to market sometimes strung on twine. Put them as they are taken out of the shell into a pan of cold water. When wanted dry them between two towels, dip in beaten egg with a little water in it and then in cracker meal and fry in hot oil the same as oysters. Drain in a colander. Serve along the middle of a large dish with a quartered lemon and curled parsley for garnish.

## ICED CROQUETTES.

Put two heaping tablespoonsful of cocoa into a double-boiler, and add gradually a pint of water. Cook and stir about five minutes, beat thoroughly, add half a pint of cream whipped lightly and stand aside to cool. When cold, fill a chocolate or sherbet cup one-third full of finely chopped ice and a little powdered sugar, then pour in the chocolate, cap it with a tablespoonful of sweetened whipped cream and serve.—Good Housekeeping.

## CREAM SOUFFLE (Mrs. Lincoln).

Blend two tablespoonsful of butter and one of flour in a saucepan. Add one-half cup of milk, one-half teaspoonful of salt and a dash of cayenne. Cook two minutes, then add the beaten yolks of three eggs and one cup of grated cheese. Set away to cool. When cool, fill a chocolate or sherbet cup one-third full of finely beaten white, pour into a buttered baking-dish and bake for about twenty-five minutes. Serve at once.

## Hints to Housekeepers.

A little ammonia slightly diluted makes a very nice cleaner for a coal collar.

Nothing could be prettier for your cotton on your summer cottage than hats. Make them of tissue paper and unseal, and have garden hats, flower hats, military hats, dance caps, jockey caps, umbrellas, fans, wall-papers, etc. You can also make flower hats and fans, flower fans, butterflies and bunches of different kinds of flowers out of the paper. For one figure hide pieces of paper in each nosegay telling who the donor of the gift shall be. A pretty way to bring the favors in is in a sedan chair or in a flower-trimmed wheelbarrow. Or have a flower-stand in one corner of the ballroom and give out the favors from there. Japanese favors are always popular. Umbrellas, fans, wall-papers, etc. Many good housekeepers use music for shortening and drying purposes. It is quite as

healthful as any of the fats, and if there be no objection to the taste, there is no reason why it should not be used as freely as other fats.

There are few households where soft soap is not required in the kitchen. The strong fats can be utilized in making this soap—which is a simple matter when the fat is fried and strained as directed. Never wait until the fat has become tainted before trying it out.

A nice sauce for lima beans, either dried or fresh, is made by taking a quarter of a cup of the beans when cooked and mashing them smooth in the cup; then add butter and one-third of a cup of cream, or milk, or the water the beans were boiled in. Pour all the water off the boiling beans and immediately add this sauce. Stir, and let boil up, then serve.

For a refreshing hot-weather salad dice tomato, a green pepper and a cucumber, dress them with French dressing and serve on lettuce leaves. For variety, stuffed olives, capers, or pickled nasturtiums may be added. A salad of raw vegetables is far more appetizing on a sultry day than one of cooked vegetables.

The best of all implements for reducing tangled fringes to its normal condition is a stiff brush. The comb too often employed by laundresses for such purposes splits the threads and soon breaks them. Many women keep a horse brush for this use and with it brush blankets as well, when their surfaces become roughened.

Many cooks sear the roast on all sides in a frying pan before putting it into the oven. A better plan, however, is to have the oven at a high temperature before the meat goes in and to allow the meat to cook quickly for ten minutes or until a crust forms on the outside. This incases the juice and insures it against escape. After that the oven should be allowed to come to a lower heat in which the meat will cook slowly. A high temperature affects the albumen of meat as it does that of eggs—makes a horny substance of it.

## Fashion Notes.

\*Large lace veils falling straight from the hat rim almost to the waist line are worn in Paris.

\*Ivory combs studded with gems are especially designed for wear in white hair.

\*Plumes of exaggerated length, formed by putting together several ordinary plumes, are used upon many of the French hats, and fall far down over the shoulders.

\*Prophets are foretelling a military note in the street gowns and coats of the coming season. Military coats, cuffs, collars, pipings are, it is said, to be much in evidence.

\*Colored handkerchiefs to accompany morning frocks are enjoying greater vogue than they have ever known on this side the water. They are shown in stripes, checks, plaids and in all the colorings common to trock frocks. There are also sheer and elaborate kerchiefs in color made to accompany more pretentious toilets, but American women have not yet adopted the colored kerchief of this type.

\*Colored silk mouseline, splashed all over with white, is finding great favor with French dressmakers.

\*A new and popular material of the net class is tulle, a fine silk tulle with meshes forming symmetrical lace designs. It is much more durable than the ordinary tulle.

\*A novel pendant for the ubiquitous long chain is the enamel perfume charm. The pendant may be as exquisite as the wearer's purse and taste admit, and must enclose a delicately perfumed sachet, whose odor escapes through perforations in the charm.

\*White open-work stockings have once more become exceedingly popular.

\*The shoes of the season are more varied and elaborate than they have been within many years. Colored kid in both suede and glass finish is freely used, and white, gray, pale yellow, blue, red and green low shoes are worn with frocks of the same color. Louis XV. shoes in rose red, with huge silver and gold buckles. Bichelle shoes of green glass kid, with nouveau art buckles, shoes of pale yellow doekin—these are not stage properties now, but are worn by fashionable women.

\*Gold tissue veiled in white chiffon forms exquisite ball gowns.

\*Deep collars of panne, ornamented with embroidery or inset lace, are likely to be much worn in the fall, replacing the cape collars of lace, embroidered batiste, etc.

\*Fringes are unquestionably successful at last, and their vogue will doubtless continue through the coming season.

\*White cotton net, printed in a soft-blue trellis pattern, over which clamber trailing vines of pink roses, is ideal material for a picturesque bergere frock.

\*There is in the millinery world a rumor that the plateau is doomed, and that the high jam-pot crown, in combination with a drooping brim, is to have its inning. The small toque and the Victorian poke are also bidding for favor.

\*Colored patent leathers have been brought to surprising perfection, and broad girdles of gay-colored varnished leather are worn and moulded closely to the waist. Dull finish leathers are used in the same way, and a broad girdle of leather exactly matching the gown material, is a chic feature of many a costume.

\*The broad, straight scarf of tulle in black or white, edged by a deep, full fringe of tulle, is a becoming and fashionable accompaniment for the ecoteille ball gown, and can easily be made at home.

\*Shaded mouseline is used not only for scarfs, parasols and trimming, but also for whole frocks.

\*The combination of widely different materials is prevalent. Bands of cloth bordered with narrow ruchings of taffeta trim frocks of mouseline or other sheer stuff. Cut-out cloth is applied to chiffon, and cloth perforated in the *broderie anglaise* fashion and with the design outlined in buttonhole stitch is combined with filmy fabrics.

\*Plain muslin or batiste, with trails of white hand embroidery running along the border of hemstitched flounces and frills is the latest note of modishness in lingerie gowns.

\*A fine linen lace thread fringe is one of the concessions to the craze for fringe.

\*Jeweled gold or silver tassels finish the ends of chiffon scarfs or narrow chain ribbons, which are tied around the throat and hang down the back.

\*Among the hand-painted mouseline frocks worn at a recent Paris function was one in soft gray mouseline, painted in shadowy fuchsias in their natural tints.

\*The reddish purples seen in the fuchsias combinations of the summer are repeated in the samples of winter stuffs now being shown. Browns lead upon most of the sample cards, and greens are numerous.

\*At many of the recent well attended weddings the bride has worn no gloves, and there are indications that the custom may be generally accepted in buttable society.

\*Black and white checked silk grenadine, made up over white and trimmed with touches of color, is particularly chic and successful.

\*Soft yellow in combination with light blue or pink, or with both combined, is a color scheme which is a revival of the taste of the Louis period.

\*There is a noticeable use of brown as a re-heating note in place of the favorite black. Even upon frocks of white net or other sheer stuffs a note of nut brown is often introduced.

\*Deep girdles on which are draped shimmering silk in myriad blending hues are called rainbow girdles and are worn with one-tone frocks in any of the shades represented in the girdle.

\*Tom Thumb fringe is used to edge flounces, capes, boleros, etc., and will surely keep its place when fall fashions are launched.—N. Y. Sun.

## The World Beautiful.

Lillian Whiting, in Boston Budget.

"Present suffering is not enjoyable, but life would be worth little without it. The difference between iron and steel is fire, but steel is worth all it costs. Iron ore may think itself senselessly tortured in the furnace, but when the watch-spring looks back it knows better. David enjoyed pain and trouble no more than we do, but the time came when he admitted that they had been good for him. Though the aspect of suffering is hard, the prospect is hopeful. The tests of life are to make, not break us. The blow at the extremity may be the greatest blessing to the inner man. If God, then, puts,

or permits, anything hard in our lives, be sure that the real peril, the real trouble, is what we shall lose if we do not as freely as other fates.

There are perhaps no words in all the divine teachings that is less understood and less accepted than the assertion of St. Paul, "We glory in tribulation also." The general reader of the gospels and epistles,—even the prayerful and reverent reader,—regards this expression to some abstract conditions, as something that might do very well for St. Paul and a rudimentary civilization, but something that might be a very appropriate and decorous sentiment for St. Sebastian on his gridiron, or St. Catherine keeping her vigils in the vast and gloomy old church in Siena, and which certainly can bear no relation and hold no message for the modern reader. For the electric life of the modern full of color and vitality; throbbing with achievement; the life that craves prosperity as its fruit; the life that finds adversity a poor and mean failure; the life that looks to a man of brilliant gifts and energy; the life that believes in its own right of way and mistakes possessions for power,—what has it to do with "tribulation" except to reject it? If it comes it is met with indignant protest rather than as a phase of experience in which to "glory"; it is evaded, if possible; and if it cannot be evaded it is received with rebellion, with gloom, with despondency and perhaps, at last, an enforced and hopeless endurance, which is not, by the way, to be mistaken for resignation. Endurance is a passive, didactic virtue, and does not even try,—to help itself,—resignation,—in its true reading,—is wholly another matter; it is active, it is alive, it is conscious and intelligent and in joyful cooperation with the will of God. It is no poor and negative mental state; it is rich in vitality and in hope, and well, for its absolute identification of itself, this human will with the divine will, it enters into a kingdom of untold glory, whose paths lead by the river of life to the noblest and most exalted heights of achievement and of undimmed joy.



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## The Horse.

### Gait of a Draft Horse.

The ability to trot well is not generally considered a valuable attribute for a draft horse, as it is claimed that to walk well is a much more useful achievement. Good trotting action, however, is not only valuable in itself, but it also brings with it many other qualities such as activity, style, balance of conformation and other features that are desirable in any class of horses.

The draft horse in trotting should go level, straight and regular, for any deviation from these qualities are usually evidence of unsoundness or the absence of a balanced conformation. The legs, both fore and hind, should flex freely at the hocks and knees, for a rigidity of movement of these is indicative of defects of some kind. A stilted hock action is much too common in draft horses and is very often due to the fact that the hock is not properly set, as may be observed in all hind legs that are too straight. Such are usually lacking in reach and power.

J. N. PRICE.

We have in the past always contended that no names were better suited for the American trotter than American Indian names, many of which are full of music and full of meaning, says the Horse Review. But it appears that we may have to take this back. Here are a few Indian names taken recently from the official poster of the Chickasaw and Choctaw nations, Indian Territory, prepared by the Dawes commission: Excellent Love, Ugly Bogle, Corn Taggle, Indian Territory Spears, Chick and Chow (twins), Ohio and Homa, Hate, Folly, Measly, Toomah, Hilly Wolf, Lay, Hampton, Sweet Magnolia, Brown, Savannah Cole, Sally Brate Smith, (born Fourth of July), Pina Jonathan Kieh, Ephraim Guest, Fanny Nora Brown, Nervus Jackson, Always Billy, Dethadne Watts, Dley Jiggets, Jane Love. Philosophers, who have studied the Indian question, affirm that contact with civilization has done nothing for the red man but corrupt him. When we ponder the difference between Oseola and Dley Jiggets and between Minnehaha and Dethadne Watts we are ready to believe it.

Mildred L., at 12 to 1, won the Missouri stakes for two-year-olds at six furlongs by two lengths at Delmar, July 30. Wreath of Ivy beat the favorite, Orient, for second place by a half-length. Mildred L. got away fourth, fell to sixth place at the quarter and laid there till the stretch was reached, where she got her speed, passing the horses on the front and winning easily. In the third race, Ancke was winning easily twenty yards from the wire, when E. Austin gave her a cut with the whip which caused her to stop and kick. She finished second.

Trilby Direct (2:06), by Direct, the fastest green pacer of the year, is out of Bessie Wilkes, by Sable Wilkes. There is a decided California flavor about her pedigree.

It is announced that Pilot Russell, an eighteen-year-old brother to Maud S. (2:07), was recently given away to a man in Elgin, O. As Harold was twenty years old the season that he got Pilot Russell, and Miss Russell was also twenty years old when she produced him. Pilot Russell, according to Professor Redfield's theory of old age as a speed factor, should be the fastest trotter and most successful sire that Miss Russell produced by Harold. His only standard performer, however, is Pass Russell, time record 2:27. Perhaps, though, with more age, he may prove more successful.

Major Delmar defeated The Abbot in the match race for a purse of \$2500 at Island Park, Albany, N. Y.

The pacing record of Saugus (Mass.) track was broken July 30 by Carl Wilkes, winning in 2:06. Previous track record, 2:08.

Those engaged in the breeding industry should not be discouraged because the horse market is dull. It is always so at this time of year.

The feature of the third day of the July meet of the Woonsocket Driving Park, July 30, was the 2:30 race in which the favorite, Ada D., was defeated by Brookdale Girl. The favorite took the first heat easily, but Brookdale Girl came up strong in the second heat, and after winning it took the third and fourth without difficulty.

Breeding isn't everything in a horse. Good care and training adds dollars to his market value.

Give the horse a bath occasionally during this hot weather. By bathing the shoulders and keeping the collar clean, many cases of galled shoulders might be prevented.

It has been announced that John A. McKerron (2:05) will start against his record at the Brighton Beach (Ohio) meeting. There is also a chance that Lou Dillon will go against time at the same meeting.

### Maine Farming Notes.

Our crops here in Maine are just booming, and trying hard to make amends for the setback of May and June. Most crops, such as the cereals, are nearly up to an average. Oats and barley, especially, are looking finely at this date. The farmers here are holding considerable old hay over, which will make up for the loss of a short hay crop. The fields that have been out are starting up fresh and green, much better than usual at this time.

The first crop will not be large, as the early frosts destroyed many blossoms, but those that are left are making a fine growth, being large, smooth and quite early. Berries, except blueberries and strawberries, are nearly as plenty here as usual. Blackberries bid fair to yield a good crop, and raspberries are quite plenty in some localities, where the soil is not too dry.

The markets are fairly good for all kinds of farm produce. Old potatoes eighty cents per bushel, butter twenty-two cents, eggs twenty-two cents, laid ten to twelve cents, cheese fifteen cents, green peas \$5 per bushel, pork seven to eight cents, hay (old) loose \$14 per ton, pressed hay \$16, straw (loose) \$7, pressed straw \$8.50.

Fall harvesting bids fair to be early, and much work will be done upon the farms,

such as clearing of stumps and stones, plowing, cutting bushes, fencing and repairing buildings, etc.

Laborers are scarce and wages high. Good men at haying demand from \$2 to \$2.50 per day. Lumber is scarce and high, and bids fair to rate high for the year to come. Good horses are well up in the market, and good milk cows are in demand.

Sidney, Me.

A. E. FAUGHT.

### Settling by Live Farmers.

This morning, July 25, we sent off to market two hundred dozen sweet corn, which sold at twenty-five cents a dozen.—J. L. Ellsworth, Worcester County, Mass.

I am convinced there is no truth in the statement that the tuberculin test increases abortion. In fact, to thin out the diseased cows by means of the test tends to improve the general health of the herd. Since adopting the test I have had less than one-fourth the amount of abortion that I had before. Another cattle owner, an opponent of the test, has five to ten times as many cases of abortion.—G. H. Ellis, Middlesex County, Mass.

We harvested about \$275 worth of strawberries from one-half acre. Had it not been for the extremely dry spring we would have harvested five hundred bushels per acre.—M. N. Edgerton, Potoskey, Mich.

A farmer may have a good cow, one that pays well for her keeping. Some man comes along that wants a cow; he offers him a good price for her; he sells and deprives himself of one of the best money-makers he has. If you have a good cow, why not hold on to her. The same is true of a good, faithful horse. Too many people are willing to get along with most anything. The farmer has a right to some of the best he can produce. If you have good animals and implements, don't sell, merely because you are offered a fair price, but hold on to them, unless you do not need them.—Lawrence Ruble, Pennsylvania.

Pullets hatched early in September will lay in the early spring, and there will be no fear of their disappointing us by not laying in the coming autumn, as we cannot expect them to lay then. Many a March or April-hatched pullet never lays till February. Of course it ought to lay earlier, and it is very easy to say "bad management" if it does not, but it is no good blinking the fact that many of us cannot get pullets to lay at six and seven months of age with the automatic regularity we should like, and with which text-books on poultry assume they lay.—J. W. Romney, Worcester County, Mass.

### Among the Orchardists.

I believe that there is a great future for Maine orcharding. We are in the apple belt and can beat the world in size, color and flavor. If I were going to give advice to a young man about setting an orchard, I would tell him to begin by planting fifty Baldwin trees, twenty-five Gravenstein and the same number of McIntosh Reds. That would be a good starter and of the right sort. Let the Ben Davis strictly alone. I have forty of them, and shall graft them over. They are worthless as an eating apple and our English friends are fast finding it out.—S. H. Dawes, Harrison, Me.

Between 1890 and 1900 seventy million apple trees had been set out in this country. What did it mean, and were we wise to continue? I have one conclusion. It is no use for an orchardist to continue in a haphazard way. It is useless to raise inferior apples and label them No. 1 Baldwins. He must begin right and continue right. Do not plant two apples to grow where there should be but one. Raise large, clean fruit with no older apples or seedlings. In that way you will merit confidence and the Maine Baldwin will stand at the head.—Z. A. Gilbert, Augusta, Me.

Cultivate, prune, spray, feed, grade, use attractive packages, believe in yourself and your calling, and make other people believe with and in you. If these conditions are fulfilled, I believe there is not a better business than fruit growing, nor a better place to engage in that business, than right here in Maine.—Prof. W. M. Munson, Orono, Me.

Proper cultivation, proper feeding and spraying are three essentials in successful fruit culture. In orchard culture I usually cultivate both ways with disc harrow, so as to destroy all weeds. For getting close to the trees I use the Morgan grape hoe. One of the most important results of cultivation is the covering of moisture, which is so essential to the proper development and maturing of summer and autumn fruits. I am satisfied that frequent cultivation of my peach orchard made for me a No. 1 crop of peaches. I do not use stable manure in any of my orchards, believing it breeds fungi and insects. I occasionally plow down a crop of clover.—H. A. Chase, Bucks County, Pa.

### Notes from the Kennebec.

It was supposed that the crop in Maine would not make over sixty per cent. But the rainy and showery weather has improved the crop so we shall make fully seventy-five per cent. The weather has been very catching and harvesting has been slow. July 30 only about one-half of the crop has been harvested. Help is scarce and wages are high, so all is being done that is possible with machinery. The jobbing crews are being well employed and of course much damp hay has been put into the barns. But the quality is good, and holds out green remarkably well, and a good price may be expected.

## "FIRST HAND BITS OF STABLE LORE," BY FRANCIS M. WARE.

Published by Little, Brown & Co.

Corn which came up poorly and somewhat uneven is now making a fast growth and bids fair to make good returns. The potato crop is not so promising in some localities, but in the large fields of Aroostook the crop will be large as usual, providing the rust does not injure the crop. All kinds of grain look very promising, and many fields are nearly ready for the harvest. Oats bid fair to make an extra yield and the kernels are remarkably heavy.

The fruit crop is not large, but the apples are of fine size and smooth up to this date. Pears are showing fairly well. Grapes medium in size, but not very thickly set.

A large area was planted to beans and we are hoping to realize a fair crop; the crop in June looked rather poorly, as some enemy worked upon the plants for about two weeks, but left, and since are making a fine showing. Garden truck is rather late, but we hope to receive a fair yield.

Sidney, Me.

A. E. FAUGHT.

### Notes from Washington, D. C.

Homor Davenport, the famous New York cartoonist, is stated to be the owner of the most extensive bird farm in America. He is successfully breeding some of the rarest birds in the world. "I am free to confess," said Mr. J. C. Wood, bird taxidermist of the National Museum, "that Davenport's big bird farm is quite the most extraordinary place of its kind in the United States. The cartoonist's hobby has been to rear only such birds as are rare and difficult to produce, and which other fanciers do not have. On the banks and surface of a beautiful little lake I beheld the wild waterfowl of every continent thoroughly domesticated—the American wood duck, none more beautiful to be found on earth, mandarin ducks, pintails running in Indian file, widgeons, mallards and the attractive little Cereopsis, with his stately carriage and disagreeable voice, like the grunting of swine; also Egyptian geese and geese from India and Terra del Fuego. There were, too, the curious Chinese geese with horns over their bills, making one think of a rhinoceros.

"Of the land birds first to see were the exceedingly rare and beautiful Impayan pheasants, their plumage a perfect blaze of gorgeous color, associating harmoniously with domestic wild turkeys. California quail ran around as tame as could be. One of Mr. Davenport's greatest prizes are his Argus pheasants, until recently the only birds of their kind in America. Their song is remarkable. They start at a low note, running rapidly up the scale, and end with a prolonged and weird shriek. They invariably give this cry several times about two o'clock in the morning—at that time a terrifying noise. The horned pheasants, or tragopans, from the Himalayas and Anderson's Kaleage are the only birds of their kind in America. I was shown a yard full of the Indian jungle fowl (Gallus bankiva) the Adam and Eve of our Domestic breeds. Mr. Davenport has paid as high as \$1000 a pair for some of his birds. He is the only person on this side of the Atlantic who is breeding the now nearly extinct old Sussex and Surrey fowls and the ancient Red Dorkings. These three breeds, the first two of which are enormous birds, were the common fowl of England in the days of Queen Elizabeth. Today they are bred by four families scattered about remote districts of England. Those who still breed the Sussex and Surrey fowls and the Red Dorkings have been doing so for generations, and think so much of the breed that they will not part with them for love or money. Mr. Davenport had to seek all England before he found these survivors of ancient breeds. The old Sussex and Surrey breeds are as large as the largest Cochins, but have no feathers on the legs. The old Red Dorking is smaller and more shapely than the modern Dorking and is a deep buff red throughout.

Argentine butter is becoming a factor in the world's market. In 1900 its exports amounted to about two million pounds; in 1902 they were over nine million, and for 1903 it is believed they will reach twenty million pounds.

A new Cuban tariff allows the importation of duty of all ewes, also cows suitable for breeding, calves and cows with calves, and high-grade bulls. Other cattle pay from \$1 to \$5 per head. Stallions, mares and mules pay from \$2 to \$15 Cuban money, which is worth about 92 cents on the dollar.

Consul Haynes at Rouen, reports that there is a good opening for cornmeal and grits in France, providing the products are put up in secure packages and offered at moderate prices. He says at present twenty-five cents is asked for two pound boxes, which is certainly an unreasonable price since the duty is less than half a cent a pound. The efforts thus far, he says, have been to intro-

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re sanitary, cows clean, bottles and cans clean; that the milk is cooled at once and transported quickly, and that it has not more than a certain number of bacteria; and that the farm is visited by an inspector, and that the Milk Commission regards it as pure and healthful.

### Showing Plenty of Fodder.

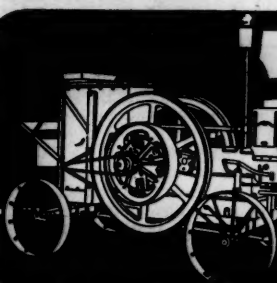
More than an average crop of hay has been gathered in this country this year, and when the drought threatened failure our dairy farmers put in the plow and the mow and sowed corn and millet and hungarian, so that our barns and silos will be full of good nutritious fodder. Several of our best farmers have told me that they will store more good fodder this year than for many years before, and consequently we are all happy.

O. S. NUTTER.

Connecticut's public employment office seems to be doing good work. After two years existence the bureau reports the total number of applicants filed for positions 27,511, of which 15,320 came from men and 14,281 from women. The aggregate number of applications for help was 21,153. In 6302 cases male help, and in 14,701 cases female help, was wanted. The total number of situations secured was 15,021, of which 5745 were for men and 9276 were for women. The Hartford office did the largest business. It had 10,084 applications for positions, and it secured situations for 2919 men and 3635 women, a total of 6454. The record of the other offices was as follows: New Haven, 6438 applications for positions filed and 2747 situations secured; Bridgeport, 5813 applications for positions filed and 4005 situations secured; Waterbury, 2913 applications for positions filed and 1721 situations secured, and Norwich, 1443 applications for positions filed and 694 situations secured. Supplying farm hands was the leading specialty in the line of male help, while a large proportion of the female help secured household work. Both these branches of labor were in great need of something that would bring employer and employee together, and the State offices appear to have answered the purpose very well. There are other States which need something of the kind.

Wages paid in western harvest fields this year have ranged from \$2.25 to \$3 per day. But the man who goes to the field with the idea of earning his money easily is always disillusioned. During harvest the farmer's day begins at four o'clock in the morning. It ends when it is so dark that it is no longer possible to drive the machine, or in other words, never earlier than eight o'clock. There is an hour for dinner, another hour for supper and lunch, and fourteen hours of the hardest kind of toil under a blazing sun for the harvest hand. He is up by three-thirty o'clock in the morning. He cannot, under the most favorable conditions, get to bed before nine o'clock the same evening. The harvest hand is well fed. On most farms he gets five meals a day—breakfast at three-thirty to four o'clock, lunch at nine, dinner at twelve, supper at five or six and another lunch before he goes to bed. It is hot work for the man who cannot stand a bruising game.

The students of the University of Missouri come from almost every county in Missouri. Fifty-six States, territories and foreign countries were represented during the session of 1902-1903 by 1591 students.



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- All the females in the first prize young herd at the American Royal of 1902.
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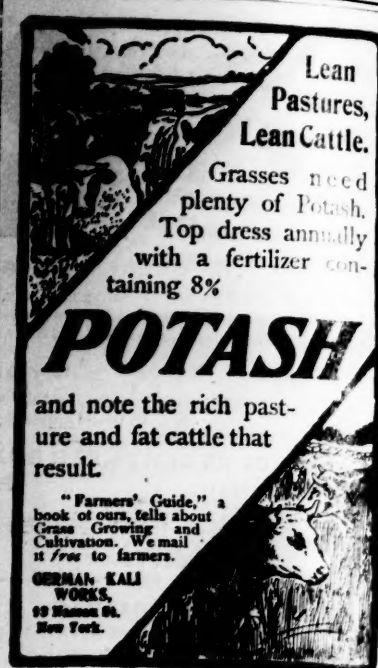
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